EXHIBIT 3

Page 1

IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA AT CHARLESTON

IN RE: ETHICON, INC., :Master File No. PELVIC REPAIR SYSTEM :2:12-MD-0237 PRODUCTS LIABILITY LITIGATION :MDL No. 2327 THIS DOCUMENT RELATES TO : JOSEPH R. GOODWIN THE CASES LISTED BELOW : U.S. DISTRICT JUDGE Mullins, et al. V. 2:12-cv-02952 Ethicon, Inc., et al. Sprout, et al. V. 2:12-cv-07924 Ethicon, Inc., et al. Iquinto v. Ethicon, 2:12-cv-09765 Inc., et al. Daniel, et al. V. 2:13-cv-02565 Ethicon, Inc., et al. Dillon, et al. V. 2:13-cv-02919 Ethicon, Inc., et al. Webb, et al. V. 2:13-cv-04517 Ethicon, Inc., et al. Martinez v. Ethicon, 2:13-cv-04730 Inc., et al. McIntyre, et al. V. 2:13-cv-07283 Ethicon, Inc., et al. 2:13-cv-10150 Oxley v. Ethicon, Inc., et al. Atkins, et al. V. 2:13-cv-11022 Ethicon, Inc., et al. Garcia v. Ethicon, 2:13-cv-14355 Inc., et al. Lowe v. Ethicon, 2:13-cv-14718 Inc., et al. Dameron, et al. V. 2:13-cv-14799 Ethicon, Inc., et al. Vanbuskirk, et al. V.

> SEPTEMBER 26, 2015 DANIEL STEVEN ELLIOTT, M.D.

Ethicon, Inc., et al.

2:13-cv-16183

Daniel Steven Elliott, M.D.

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1	CAPTION CONTINUED:	1	APPEARANCES
2 3	Mullens, et al. V. 2:13-cv-16564 Ethicon, Inc., et al.	2	For the Plaintiffs:
4	Shears, et al. V. 2:13-cv-17012 Ethicon, Inc., et al.	3	WAGSTAFF & CARTMELL, LLP 4740 Grand Avenue
	Javins, et al. V. 2:13-cv-18479	4	Suite 300
5	Ethicon, Inc., et al. Barr, et al. V. 2:13-cv-22606	-	Kansas City, Missouri 64112
6	Ethicon, Inc., et al. Lambert v. Ethicon, 2:13-cv-24393	5	816.701.1100 tcartmell@wcllp.com
7	Inc., et al.	6	BY: THOMAS P. CARTMELL
8	Cook v. Ethicon, Inc. 2:13-cv-29260 Stevens v. Ethicon, 2:13-cv-29918	7	For the Defendants:
9	Inc., et al. Harmon v. Ethicon, Inc. 2:13-cv-31818	8	Tor the Defendants.
	Snodgrass v. Ethicon, 2:13-cv-31881		BUTLER SNOW, LLP
10	Inc., et al. Miller v. Ethicon, Inc. 2:13-cv-32627	9	500 Office Center Drive Suite 400
11	Matney, et al. V. 2:14-cv-09195 Ethicon, Inc., et al.	10	Fort Washington, Pennsylvania 19034
12	Jones, et al. V. 2:14-cv-09517 Ethicon, Inc., et al.	11	267.513.1885 Burt.Snell@butlersnow.com
13	Humbert v. Ethicon, 2:14-cv-10640	11	BY: NILS B. (BURT) SNELL
14	Inc., et al. Gillum, et al. V. 2:14-cv-12756	12	and
15	Ethicon, Inc., et al. Whisner, et al. V. 2:14-cv-13023	13	BUTLER SNOW, LLP 1020 Highland Colony Parkway
	Ethicon, Inc., et al.		Suite 1400
16	Tomblin v. Ethicon, 2:14-cv-14664 Inc., et al.	14	Ridgeland, Mississippi 39157
17	Schepleng v. Ethicon, 2:14-cv-16061 Inc., et al.	15	601.948.5711 paul.rosenblatt@butlersnow.com
18	Tyler, et al. V. 2:14-cv-19110 Ethicon, Inc., et al.		BY: PAUL S. ROSENBLATT
19	Kelly, et al. V. 2:14-cv-22079	16 17	
20	Ethicon, Inc., et al. Lundell v. Ethicon, 2:14-cv-24911	18	
21	Inc., et al. Cheshire, et al. V. 2:14-cv-24999	19	
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22	Burgoyne, et al., V. 2:14-cv-28620 Ethicon, Inc., et al.	22	
23 24	Bennett, et al., V. 2:14-cv-29624 Ethicon, Inc., et al.	23 24	
25	, ,	25	
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1	DEPOSITION OF DANIEL STEVEN ELLIOTT, M.D.,	1	INDEX
2	produced, sworn and examined on behalf of the	2	WITNESS: DANIEL STEVEN ELLIOTT, M.D.
3	Defendants, pursuant to Notice and Agreement, on	3	Examination by Mr. Snell
4	Saturday, the 26th day of September, 2015, between the	4	Examination by Mr. Cartmell 323
_			
1 5	hours of 9:41 a.m. and 5:54 p.m. of that day, at the		
5 6	hours of 9:41 a.m. and 5:54 p.m. of that day, at the	5	·
6	law offices of Wagstaff & Cartmell, LLP, 4740 Grand	5 6	EXHIBITS
6 7	law offices of Wagstaff & Cartmell, LLP, 4740 Grand Avenue, in the City of Kansas City, in the County of	5 6 7	EXHIBITS NUMBER DESCRIPTION PAGE
6 7 8	law offices of Wagstaff & Cartmell, LLP, 4740 Grand Avenue, in the City of Kansas City, in the County of Jackson, and the State of Missouri, before me,	5 6 7 8	EXHIBITS NUMBER DESCRIPTION PAGE Exhibit 1 - Amended notice of Deposition of 9
6 7 8 9	law offices of Wagstaff & Cartmell, LLP, 4740 Grand Avenue, in the City of Kansas City, in the County of Jackson, and the State of Missouri, before me, NAOLA C. VAUGHN, CCR No. 1052, CRR, RPR, a Certified	5 6 7 8 9	EXHIBITS NUMBER DESCRIPTION PAGE Exhibit 1 - Amended notice of Deposition of 9 Daniel Elliott, M.D.
6 7 8 9	law offices of Wagstaff & Cartmell, LLP, 4740 Grand Avenue, in the City of Kansas City, in the County of Jackson, and the State of Missouri, before me, NAOLA C. VAUGHN, CCR No. 1052, CRR, RPR, a Certified Court Reporter, within and for the States of Missouri	5 6 7 8 9	EXHIBITS NUMBER DESCRIPTION PAGE Exhibit 1 - Amended notice of Deposition of 9 Daniel Elliott, M.D. Exhibit 2 - Updated publication list 11
6 7 8 9 10	law offices of Wagstaff & Cartmell, LLP, 4740 Grand Avenue, in the City of Kansas City, in the County of Jackson, and the State of Missouri, before me, NAOLA C. VAUGHN, CCR No. 1052, CRR, RPR, a Certified	5 6 7 8 9 10 11	EXHIBITS NUMBER DESCRIPTION PAGE Exhibit 1 - Amended notice of Deposition of 9 Daniel Elliott, M.D. Exhibit 2 - Updated publication list 11 Exhibit 3 - International Journal of Urology 11
6 7 8 9 10 11 12	law offices of Wagstaff & Cartmell, LLP, 4740 Grand Avenue, in the City of Kansas City, in the County of Jackson, and the State of Missouri, before me, NAOLA C. VAUGHN, CCR No. 1052, CRR, RPR, a Certified Court Reporter, within and for the States of Missouri	5 6 7 8 9 10 11	EXHIBITS NUMBER DESCRIPTION PAGE Exhibit 1 - Amended notice of Deposition of 9 Daniel Elliott, M.D. Exhibit 2 - Updated publication list 11 Exhibit 3 - International Journal of Urology 11 Long-term quality of life outcomes
6 7 8 9 10 11 12 13	law offices of Wagstaff & Cartmell, LLP, 4740 Grand Avenue, in the City of Kansas City, in the County of Jackson, and the State of Missouri, before me, NAOLA C. VAUGHN, CCR No. 1052, CRR, RPR, a Certified Court Reporter, within and for the States of Missouri	5 6 7 8 9 10 11 12	EXHIBITS NUMBER DESCRIPTION PAGE Exhibit 1 - Amended notice of Deposition of 9 Daniel Elliott, M.D. Exhibit 2 - Updated publication list 11 Exhibit 3 - International Journal of Urology 11 Long-term quality of life outcomes and retreatment rates after robotic
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6 7 8 9 10 11 12 13	law offices of Wagstaff & Cartmell, LLP, 4740 Grand Avenue, in the City of Kansas City, in the County of Jackson, and the State of Missouri, before me, NAOLA C. VAUGHN, CCR No. 1052, CRR, RPR, a Certified Court Reporter, within and for the States of Missouri	5 6 7 8 9 10 11 12	EXHIBITS NUMBER DESCRIPTION PAGE Exhibit 1 - Amended notice of Deposition of 9 Daniel Elliott, M.D. Exhibit 2 - Updated publication list 11 Exhibit 3 - International Journal of Urology 11 Long-term quality of life outcomes and retreatment rates after robotic
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6 7 8 9 10 11 12 13 14 15 16 17 18	law offices of Wagstaff & Cartmell, LLP, 4740 Grand Avenue, in the City of Kansas City, in the County of Jackson, and the State of Missouri, before me, NAOLA C. VAUGHN, CCR No. 1052, CRR, RPR, a Certified Court Reporter, within and for the States of Missouri	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	EXHIBITS NUMBER DESCRIPTION PAGE Exhibit 1 - Amended notice of Deposition of 9 Daniel Elliott, M.D. Exhibit 2 - Updated publication list 11 Exhibit 3 - International Journal of Urology 11 Long-term quality of life outcomes and retreatment rates after robotic sacrocolpopexy Exhibit 4 - The Cochrane Collaboration 54 Mid-urethral sling operations for stress urinary incontinence in women Exhibit 5 - Oxford Level of Evidence Pyramid 60 Exhibit 6 - International Urogynecology Journal 66 Long-Term (10-15 years) Follow-up
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6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	law offices of Wagstaff & Cartmell, LLP, 4740 Grand Avenue, in the City of Kansas City, in the County of Jackson, and the State of Missouri, before me, NAOLA C. VAUGHN, CCR No. 1052, CRR, RPR, a Certified Court Reporter, within and for the States of Missouri	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	EXHIBITS NUMBER DESCRIPTION PAGE Exhibit 1 - Amended notice of Deposition of 9 Daniel Elliott, M.D. Exhibit 2 - Updated publication list 11 Exhibit 3 - International Journal of Urology 11 Long-term quality of life outcomes and retreatment rates after robotic sacrocolpopexy Exhibit 4 - The Cochrane Collaboration 54 Mid-urethral sling operations for stress urinary incontinence in women Exhibit 5 - Oxford Level of Evidence Pyramid 60 Exhibit 6 - International Urogynecology Journal 66 Long-Term (10-15 years) Follow-up after Burch Colposuspension for Urinary Stress Incontinence
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3	Exhibit 8 - American Urological Association 116	3	Exhibit 22 - In-Depth Nano-Investigation of 250
4	AUA Position Statement on the Use	4	Vaginal Mesh and Tape Fiber
5	of Vaginal Mesh for The Surgical	5	Explants in Women
6	Treatment of Stress Urinary	6	Exhibit 23 - FDA article on Medical Devices, 264
7	Incontinence	7	Considerations about Surgical Mesh
8	Exhibit 9 - IUGA Position Statement on 134	8	for SUI
9	Mid-Urethral Slings for Stress	9	Exhibit 24 - Journal of Urology, Time Dependent 289
10	Urinary Incontinence	10	Variations in Biomechanical Properties
11	Exhibit 10 - AUGS/SUFU Position Statement on 139	11	of Cadaveric Fascia, Porcine Dermis,
12	Mesh Midurethral Slings for Stress	12	Porcine Small Intestine submucosa,
13	Urinary Incontinence	13	polypropylene mesh and autologous
14	Exhibit 11 - AUGS Position Statement on 146	14	fascia in the rabbit model:
15	Restriction of Surgical Options	15	implications for sling surgery
16	for Pelvic Floor Disorders	16	Exhibit 25 - Urology, Time-Dependent Variations 293
17	Exhibit 12 - EAU Guidelines on Surgical 151	17	in inflammation and scar formation
18	Treatment of Urinary Incontinence	18	of six different pubovaginal sling
19	Exhibit 13 - EAU Guidelines on Urinary 154	19	materials in the rabbit model
20	Incontinence	20	materials in the rabbit moder
21	Exhibit 14 - ICS Fact Sheets 155	21	
22	Exhibit 15 - NICE Urinary Incontinence: The 160	22	
23	management of urinary incontinence	23	
24	in women	24	
25	Exhibit 16 - Mayo Clinic web site information 171	25	
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1	EXHIBITS (Continued)	1	(Exhibit 1 marked.)
2	NUMBER DESCRIPTION PAGE	2	DANIEL STEVEN ELLIOTT, M.D.,
3	Exhibit 17 - International Urogynecology Journal 178	3	a witness, being first duly sworn, testified as
4	Long-term Results of the Tension-Free	4	follows:
5	Vaginal Tape (TVT) Procedure for	5	EXAMINATION DV MD CNELL
6 7	Surgical Treatment of Female Stress	6	BY MR. SNELL:
	Urinary Incontinence	7	Q. Good morning, Dr. Elliott?
8	Exhibit 18 - Neurourology and Urodynamics 185	8	A. Good morning.
9	Minimally Invasive Synthetic	9 1.0	Q. Can you state your full name for the
	Suburethral Sling Operations for Stress Urinary Incontinence in Women	10 11	record, please.
11 12	A Short Version Cochrane Review	12	A. Daniel Steven Elliott, S-t-e-v-e-n. O. You and I know each other. I'll just
13	Exhibit 19 - American Journal of Obstetrics and 204	13	Q. You and I know each other. I'll just
14	Gynecology, A histologic and	13 14	forewarn you. I'm developing a cold and my voice is a little deep and cracky. And I have some
15	immunohistochemical analysis of	15	water and I'll try to drink so it my speech is not
16	defective vaginal healing after	16	impeded, but if you don't understand something I
17	continence taping procedures:	17	say today, please tell me and I'll try to pose a
18	A prospective case-controlled pilot	18	question that makes coherent sense to you.
19	study	19	Is that okay?
20	Exhibit 20 - Hernia Repair Sequelae 213	20	A. That is perfectly fine. Thank you.
21	Exhibit 21 - International Urogynecologic 242	21	Q. All right. I've given you Exhibit 1,
22	Journal, polypropylene as a	22	which is the notice for your deposition.
23	reinforcement in pelvic surgery	23	Have you seen that document before?
24	is not inert: Comparative	24	A. Yes.
25	_		
	analysis of 100 explants	24 25	A. Yes. Q. All right. And what, if anything, did

3 (Pages 6 to 9)

Page 10 Page 12 1 you do to comply with the request that you bring 1 education committee. Minnesota Medical Society. 2 documents and materials that is attached to that 2 Zumbro Valley Medical Society. Olmsted Community 3 3 request? Medical Society. International Urogynecologic 4 A. I provided up-to-date -- well, you 4 Society. Society of Urologic Prosthetic Surgeons. 5 5 have already a copy of my CV. I have -- which I Society of Laparoendoscopic Surgeons. Minimally 6 can provide to you. There are five new things. 6 Invasive Robotic Association. Minnesota Urologic 7 7 Just as far as what has been published, which I Society. European Association of Urology, which I 8 8 can provide to you there. That's a -- and then am a member of, an international member, and then 9 9 that is a copy of the manuscript, that number 5, I'm also a member of the subsection of 10 10 because that just came out yesterday. So I didn't Genitourinary Reconstructive Surgeons, and also a 11 11 have that typed up. member of the section of the Female Urology and Q. Did you bring your file here today? 12 12 Functional Urology. And again that's underneath 13 A. The file? I'm sorry. 13 the umbrella of the European Urology Association. Q. I guess, did you bring your expert 14 International Urogynecologic Association. 14 file here today that would contain the documents 15 International Pelvic Pain Society. 15 16 and materials that you reviewed and are relying 16 Q. In your role on the education 17 17 on? committee for SUFU -- and that's the society of 18 MR. CARTMELL: We can just -- for the 18 what? 19 19 A. Good question. They changed the name. record, we can get a thumb drive of everything 20 20 that's on his reliance list, including that Society of Urodynamics and Female 21 update. I just need to talk to Kuntz about that. 21 Urology is an acceptable -- but, again, they've 22 22 I don't have the thumb drive with me today. actually moved around the words a bit there, but Q. BY MR. SNELL: Do you have the thumb 23 23 that's what it means. 24 drive, Doctor? 24 Q. Can I just call it SUFU? 25 25 A. SUFU. A. No. I don't have that, no. I have my Page 11 Page 13 report. I do not have a copy of my reliance list. 1 1 Make it easier on the court reporter, 2 Q. Okay. So we'll mark as Exhibit 2 the 2 too. 3 five new studies that would go on your CV; is that 3 A. SUFU is much better. I prefer that. 4 4 Q. SUFU in all caps. Okay. What is your 5 5 A. Correct. Those are my published role -- strike that. 6 studies, yes. 6 What do you do in your role as being 7 (Exhibit 2 marked.) 7 on the education committee for SUFU? 8 Q. BY MR. SNELL: We'll mark as Exhibit 3 8 A. It is a -- focusing on the education 9 article number 5, which the lead author is Linder, 9 not only of the current residents of what we feel 10 L-i-n-d-e-r, then Chow, then Elliott. Long-term 10 would be appropriate for training in female 11 quality of life outcomes and retreatment rates 11 urology, urinary incontinence and prolapse, but 12 after robotic sacrocolpopexy. 12 also determining goals, objectives of education at 13 (Exhibit 3 marked.) 13 meetings and lecture topics, things like that. 14 Q. BY MR. SNELL: To what professional 14 Q. You've given testimony in the past; 15 societies do you currently belong to? 15 correct? 16 A. That would be in my CV. Let me see if 16 A. Correct. I have a copy of my CV. I might not. Oh, I do 17 17 Q. I've deposed you in the past; correct? 18 have one. 18 A. Twice, I believe, yes. 19 Professional societies are going to be 19 Q. So we can rely on your prior 20 listed in the professional membership society on testimony. We don't have to ask you those 20 21 page 3 of 25. AMA, American Medical Association. 21 questions again; correct? 22 22 A. Well, with the understanding that American Association of Clinical Urologists. 23 American Urologic Association. International 23 sometimes things have changed, but, yeah, as far 24 Incontinent Society. Society of Urodynamics and 24 as data being out, those types of things. 25 Female Urology, which I am a member and on the 25 Q. Okay.

4 (Pages 10 to 13)

Page 14 Page 16 1 A. That's a broad question, because those 1 Q. Not really. 2 are depositions over two or three days -- or two 2 So just remind me, what section of the 3 days, excuse me. So I'd have to see each specific EAU is focused on assessing the surgical options 3 4 question what you're talking about. 4 for stress urinary incontinence? 5 5 Q. Okay. As you sit here today, is there A. That would be a function of the female 6 any testimony that you gave in the Bellew or Gross and functional urology. 6 7 cases that was inaccurate or untruthful? 7 Q. Are you a member of that section? 8 8 A. Correct. And I'm on the board of A. No. They would all been truthful and 9 accurate, but as the -- as data becomes available, 9 that, yes. 10 more research being done, as I read more internal 10 Q. How long have you been on the board of 11 documents, certain positions may change. But 11 that section that assesses the surgical treatment there's nothing dishonest or deceitful. 12 12 of stress incontinence? 13 Q. In connection with the education 13 A. Since April of 2013. committee for SUFU, you testified that one of the Q. Okay. What are your fees for your 14 14 things that you were involved in was looking at work as an expert in this matter? 15 15 16 the training that residents would need in urology, \$700 an hour. 16 17 female urology? 17 Q. And what is your fees for testimony? Same. \$700 an hour for everything. 18 A. Looking at the goals or where we want 18 19 Plus travel expenses and costs? residents to be, what criteria or surgeries, 19 20 volumes, types of surgeries, testing, 20 A. Correct. 21 credentialing. 21 Q. How many hours have you worked on the 22 Q. Okay. 22 Mullins case. A. All those issues. And when I say Mullins, this is the 23 23 24 O. And for the EAU, can I call that the 24 MDL design defect case. 25 European Association of Urology? 25 A. As far as specifically on patient Page 15 Page 17 A. EAU's easy, yeah. Mullins, I have not reviewed her records. As far 1 1 2 Q. Okay. And you said you were a member 2 as TVT and design, I guess I don't know 3 of the genitourinary section? 3 specifically -- specifically on the TVT and A. Yeah. The genitourinary design, it's going to be somewhat difficult to 4 4 reconstructive. So it's reconstructive surgeons, 5 ascertain exact time, because obviously the study 5 6 because my training is in female pelvic medicine 6 of Prolift factors in. 7 7 and reconstructive surgery, which are separate and But as far as I can determine, roughly 8 overlapping training. 8 60 hours have been spent as of August 31st, 2015. 60 hours. 9 Q. That would include the surgical 9 10 treatment of stress urinary incontinence? 10 Q. How many hours have you spent since A. That would be the other committee. September 1st on this matter? 11 11 12 That would be the female urology and functional 12 A. It's going to be difficult, because there's also travel involved in there. So I don't 13 urology. Reconstructive would be complications, 13 14 radiation damage, those types of things. Anytime 14 know if you want the total hours, because that's not also study on things. But that'd be about 15 you hear of reconstructive, think of fixing 15 16 mistakes or problems. 16 110 hours. Q. Are you a member of the section that Do you bill \$700 an hour when you 17 17 Q. assesses surgical treatment options for stress 18 18 travel? urinary incontinence for the EAU? 19 19 A. Correct. 20 A. Well, the members of the female Q. Do you issue invoices for your time 20 spent on this matter? 21 functional -- we're not necessarily -- unlike the 21 SUFU, which is an education section, this is more 22 22 Correct. Do you send those to Ben Anderson? 23 like the research that's being done. It's not 23 24 Correct. setting goals or guidelines by any means. I don't 24 25 know if that answers your questions or not. 25 And would those invoices be specific

5 (Pages 14 to 17)

Page 18 Page 20 to and reference your work in the Mullins' TVT 1 1 A. The answer to that probably would be 2 design defect case? 2 no. I could be involved in the cases, but I am 3 A. It will be specific to Ethicon. 3 not the one sitting behind the robot. I am the 4 Q. Okay. 4 one involved directing traffic as far as the A. So that's why it's difficult to 5 5 dissection goes. 6 determine exact number of hours, and that data 6 Q. Okay. What surgical options do you 7 reviewed two years ago is pertinent to now. So 7 currently use for the treatment of stress urinary 8 8 that's why it's difficult to know the total incontinence in your patients, if any? 9 A. Autologous pubovaginal sling, number. 9 10 Q. You're serving as an expert against cadaveric pubovaginal sling, autologous obturator 10 vagina sling, and then in the past since August of 11 other mesh manufacturers? 11 A. Yes. Mentor ObTape. 2013, there's been one mesh sling. So that is a 12 12 13 Q. Any others? 13 change from previous testimony. A. There was start in the Cook Surgisis 14 Q. How many autologous transobturator 14 mesh, but last I've heard there's no action going 15 slings do you use on average each year? 15 16 on with that. 16 A. Probably it's around 80 or so. That's 17 I have been deposed with Avaulta. 17 a rough -- that's a rough number. It varies from 18 But, again, nothing has happened with that in six 18 time to time. But in the past two years or -months, and I don't know where the status of those 19 yeah, two years now, I'd say 80 a year's probably 19 20 are 20 accurate. 21 Q. Avaulta, is that a Bard product? 21 Q. And that's the autologous 22 transobturator sling? A. Correct. 22 Q. That's a prolapse product? 23 2.3 A. Correct. 24 A. Prolapse product; correct. 24 Q. I know you published a feasibility 25 Q. Okay. Does the Mayo Clinic know that 25 cohort study on very small sample size for the Page 19 Page 21 you're serving as an expert for plaintiffs in the autologous transobturator pubovaginal sling; 1 1 2 mesh litigation? 2 correct? 3 A. No. This is all done by private time. 3 A. Correct. Q. I know I deposed you in two prolapse 4 4 That was ten patients; correct? cases in the past. So today I'm really focused on A. I believe so. It was ten patients, 5 5 6 stress urinary incontinence; all right? 6 yes. 7 7 A. Correct. Q. There's a 20 percent failure rate at a mean average of four months' follow-up; correct? 8 Q. With that said, though, let me just 8 9 ask you this question. 9 A. Yeah. That data is now -- we're 10 In the Bellew deposition you testified 10 looking at 60 patients with one year. about treatment options you used for prolapse. Q. Has that data been published? 11 11 12 Do you recall that, in general? 12 A. That's in the process of being gathered right now. All patients are being 13 A. Correct. 13 Q. Have those changed as we sit here 14 14 contacted. 15 today? 15 Q. How many patients are going to be in that cohort, you said? 16 A. No. 16 A. 60. It's a continuation of 17 Q. For Exhibit 3, the robotic 17 sacrocolpopexy cohort that you published on -feasibility study. Looking at safety, efficacy, 18 18 complications, et cetera. 19 19 A. Yes. Q. -- am I correct that you're not the 20 Q. Has that data been presented anywhere 20 one who runs and operates the robot? 21 21 in abstract form or oral presentation? A. No. Dr. Chow does that. 22 A. Yes. I'd have to go back to the CV. 22 It was presented in February of 2015 at SUFU. Q. Okay. Are you credentialed at Mayo 23 23 Clinic to run the robot for sacrocolpopexy 24 Again, that was the initial feasibility study. 24 25 procedures? 25 Q. I think my question maybe wasn't

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Page 22 Page 24 1 1 their tissue. Because mostly what I'm seeing in clear 2 So on this updated cohort of 60 2 my practice is somebody that's been operated on 3 3 multiple times. I'm not seeing usually the patients --4 4 first-time patient. So, again, there's multiple A. Oh, I see. Q. -- have you presented on those data 5 5 patient variables. 6 6 Q. Do you have patients for whom you anywhere? 7 7 offer the autologous pubovaginal sling and who A. No. Not in the updated, no. 8 8 Q. And then the small feasibility study decline that operation? that you did publish on, you recall the mean 9 9 A. I suppose that could occur, but follow-up time was to four months? usually those individuals are declining surgery 10 10 A. It was short-term, yes. period, not declining the autologous sling. So we 11 11 Q. What's a feasibility study? have to be very careful how we're phrasing that. 12 12 A. Feasibility is a small cohort of 13 13 They are not a surgical candidate or they're patients that understand that they're involved in 14 choosing not to undergo surgery for their 14 a study to determine whether or not this is a good 15 treatment. They're not saying, I do not want a 15 16 treatment option, where we're doing quality of 16 autologous sling. 17 life assessments prior to and afterwards and 17 Q. Are there patients for whom you've 18 following very closely, looking at complications 18 treated that do not want a cadaveric sling? 19 and efficacy with 24-hour PAD tests. A. I have not encountered that, no. 19 Q. How many cadaver slings do you use on Q. Is the autologous transobturator sling 2.0 20 21 average each year? And if that's changed year to 21 the primary -- sounds like it's the primary stress year, you can tell me that. urinary incontinence surgery you're doing? 22 22 A. Yeah. The numbers are so -- quite Primary being the most common? 2.3 23 A. Yes, sir. 24 variable. So it's difficult to give you a number 24 Q. 25 I would say autologous slings are probably going 25 That would be correct, sir, at this Page 23 Page 25 to be around, let's say, 30 or so. And then 1 1 point. But, again, we're going to analyze the cadaverics are probably going to be probably less 2 2 data. 3 than that. Probably 10 or so a year. 3 Q. And the autologous transobturator Q. You do about 30 or so autologous sling is not a medical device; is that correct? 4 4 pubovaginal slings; correct? 5 5 A. That's correct. 6 A. About 30 a year, yes. And that will 6 Q. The cadaveric sling is not a medical 7 vary dramatically, yes. 7 device; correct? Q. And that's the traditional pubovaginal 8 8 A. Well, it's -- it's a device -- it's a 9 sling procedure that's been referenced in the 9 product that is purchased from the company 10 literature for decades? 10 Coloplast. So I don't think it qualifies. It's A. Yes. With the understanding that the not a man-made device. 11 11 12 term "pubovaginal" is not necessarily a specific 12 Q. It's harvested from a dead person; way of doing it, but in general, you are correct. 13 13 correct? 14 Q. And that's the sling that's -- where 14 A. Correct. the tissue is harvested from the patient herself; 15 15 Q. And the one mesh sling you used, I think you said in August of 2013? 16 correct? 16 17 A. Correct. 17 A. Correct. Q. Okay. And the autologous pubovaginal Q. What type of mesh sling was that? 18 18 sling is not a medical device; is it? That was a Coloplast product, the 19 19 A. A. Correct. It is not. 20 20 Supris. Q. Why do you only use 10 or so cadaveric 21 21 Q. Why did you only use that Coloplast Supris on one occasion? 22 slings a year? 22 23 A. It's going to be dependent upon the 23 A. That was -- I can't recall the exact patients, the specific patient, the criteria they patient issues with that one. There was some 24 24 25 have, multiple different surgeries, the quality of 25 reason why we did not -- and that's one -- it

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Page 26 Page 28 1 wasn't in August of 2013. It's since August of 1 Q. In the past 10 years, have you used 2 2013 there's only been one. So it's a major shift 2 the Birch colposuspension? in my practice. And I don't recall the reasons 3 A. No, I have not. 3 4 why we chose it, but there was a medically 4 Q. In the past 10 years, have you used 5 the Marshall-Marchetti-Krantz colposuspension 5 necessary reason, in my opinion, to do it. 6 Q. What type of material is the Coloplast 6 procedure? 7 7 material made of? A. No, I have not. I have not 8 8 personally. I've been involved in cases -- I A. It is a polypropylene mesh. should take that back or strike it whatever your 9 Q. And what route is the Coloplast Supris 9 10 10 sling placed? legal terminology is. 11 I have been involved with GYN cases A. It's a suprapubic approach. 11 Transvaginal suprapubic. 12 12 who have done the Burch. I was not the surgeon 13 Q. Can you explain that to me? I'm 13 doing the Burch. I was doing something else. But familiar with retropubic and transobturator. 14 I have not personally done the Burch or the MMK 14 A. Well, retropubic, all that means is 15 since fellowship, which was in '99 to 2000. 15 behind the pubic bone. So it doesn't describe to 16 Q. How many Burch procedures have you 16 17 a surgeon -- it doesn't describe -- it just 17 personally done in your career? describes an anatomical location. The TVT is 18 A. Probably two. 18 Q. How many MMK procedures have you 19 19 bottom up. Supris or Sparc is top-down. That's 20 personally done in your career? probably -- that's the easier way to --20 21 Q. So the Colopress -- strike that. 21 A. Zero. The Coloplast Supris polypropylene 22 22 The Burch colposuspension is not a medical device: correct? mesh sling uses a top-to-bottom approach? 23 23 24 A. Correct. 24 A. Correct. 25 And just so I'm clear, you've used 25 Besides the Supris Coloplast sling, Page 27 Page 29 that sling on one occasion only? 1 what other Coloplast slings did you use? 1 2 A. No. No. I've used that once since 2 A. The Aris. A-i -- excuse me, A-r-i-s. 3 August of 2013. Prior to that, I probably placed 3 That is the transobturator. Same mesh, just a 1200 or so. For a while there I was doing 100 to 4 4 different route. 150 slings a year. Those were synthetic slings. 5 5 Q. So I take it you would have began 6 Those were the Coloplast, and that started in 2004 6 using the Coloplast Supris before the Coloplast 7 7 or so. So whatever the math is on that. So prior Aris sling? 8 to that I used another product. So what I'm 8 A. I don't recall the sequence of how 9 saying is I've stopped using polypropylene as a 9 they were introduced. So it would have been about 10 first line treatment. 10 the same time, because in that time frame, Q. So from 2004 up to around the midpoint 11 transobturator route was available and suprapubic 11 12 of 2013, August 2013 --12 route, or top-down was available. I would think I 13 probably started using both at the same time, if 13 A. Correct. 14 Q. -- you used Coloplast polypropylene 14 they were available. I don't recall exactly. mesh slings as your primary surgical option for Q. Okay. You mentioned you had some 15 15 the treatment of stress urinary incontinence? problems with AMS slings. 16 16 A. That's correct. At some point in 17 17 A. Correct. time -- I cannot recall the exact dates -- I Q. Were those AMS polypropylene slings? 18 18 19 changed from using the AMS product, because of the 19 A. Correct. The Sparc, S-p-a-r-c, and 20 problems I was having with it, to the Coloplast 20 the Monarc, M-o-n-a-r-c. Because of those 21 product. Again, we have to take with a grain of 21 problems, I stopped using the product. 22 salt, it was 2004, 2005, in that time frame. And 22 Q. Sparc is a retropubic sling? 23 then it was exclusively the Coloplast product. No 23 A. Correct. Top-down. Top-down. And Monarc, as I understand 24 other product. No other polypropylene mesh was 24

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it, is an outside and transobturator sling?

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used.

Page 30 Page 32 1 A. Correct. 1 with the AMS Sparc and Monarc problems? Strike 2 Q. How many AMS slings do you think you 2 that. That was a bad question. I need water. 3 placed in your career made of polypropylene? 3 When do you recall first using the 4 A. Yeah. I initially started -- I'll 4 ObTape? 5 5 answer your question. This is complicated. I A. I'd be able to search my records and 6 initially started using the ObTape, which was a 6 give you a pretty close to accurate date, but it 7 7 transobturator Mentor product. Had a horrible would have been about in 2003, about in October or 8 8 amount of complications. So around in 2004 -- excuse me, 9 9 Q. You did a fellowship; right? 10 2003 -- again, I don't recall the exact dates -- I 10 A. Correct. 11 changed over to the AMS product. And so I 11 Q. What surgeries did you learn to do to treat stress urinary incontinence during your 12 probably placed in a period of a year or two until 12 13 the Coloplast product became available -- so you 13 fellowship? have to understand this is a guesstimate -- 100 to 14 14 A. Well, that's where we did a Burch. So 15 150 a year. So we can say 2 to 300, maybe. 15 I'd never done Burch in residency. We only did 16 Q. Okay. So am I correct that the ObTape 16 one or two. 17 was the first synthetic sling you placed for the 17 Q. Okay. 18 surgical treatment of stress urinary incontinence? 18 A. Where I was the surgeon or under the leadership of a staff. 19 A. Okay. We're going back 13, 14, 19 2.0 15 years now. That was a transobturator route. 20 I had already done autologous slings. 21 So I was doing suprapubic prior to that. I was 21 So I improved my skills. I wouldn't say I was 22 the first in the state of Minnesota and possibly 22 learning something new. the first in the United States to use the ObTape. 2.3 23 And then the cadaveric sling I learned 24 At least that's what the company told me. So I 24 there. 25 was actually using the Sparc prior to that. And, 25 Q. Okay. Page 31 Page 33 again, I know it's going to be difficult. I'm not A. Or first did there. I knew about it, 1 1 2 trying to be difficult. I just can't recall the 2 but had first performed the procedure. 3 exact -- so I was definitively using suprapubic 3 Q. In your residency, what stress urinary incontinence surgeries did you learn about? 4 prior to that time. And then transobturator came 4 5 out. The Mentor at the time had the patent, two 5 A. Only pubovaginal, autologous 6 transobturators. They were the first ones to do 6 pubovaginal sling. 7 it. So I would have used a suprapubic route 7 Q. Is it correct that in your fellowship you did not learn -- strike that. 8 first. Then transobturator with Mentor. Had 8 9 problems. Then swapped over to the AMS Monarc 9 Is it correct in your fellowship you 10 would probably be the sequence of things. 10 did not perform any synthetic slings to treat 11 Q. What kind of problems did you have stress urinary incontinence? 11 12 with the ObTape sling? 12 A. That is correct. At that point in A. You name it. It was a terrible time, only the TVT was available. My staff and 13 13 14 device. It was problems of buttock abscess. residency and then my fellowship staff both did 14 15 Extrusion rate. Pussing out. Pain. I did it in 15 not feel it was safe; so did not do it. So my 16 110 patients, and we had 9 come back within a year 16 first synthetic came afterwards when the Sparc 17 or so with obturator fossa abscess, buttock 17 came out. abscess, extrusion. And then I had one patient 18 18 Q. Is the retropubic mid-urethral sling come back in 2013. So what's that? Eight years taught in Mayo Clinic in residencies? 19 19 20 after I implanted it with another extrusion. A. It is not taught in the urology 20 21 department. I cannot speak for the urogynecology Q. So you had a total of 10 patients who 21 22 came back with some type of complication out of 22 department. 110 for the ObTape? 23 23 Q. Is the retropubic mid-urethral 24 A. Correct. That I know of. polypropylene sling taught in fellowship at Mayo 24

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Clinic?

What type of problems did you have

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Page 34 A. Well, that would just be in the urogynecology department. We do not have a fellowship. So I don't know what they learn Q. So circling back around to the AMS sling problems that you had, what were those with the Sparc and the Monarc? A. We'd have to divide it up into each one, if you want. Kind of a -- because suprapubic

than the transobturator route.

Q. Okay. Let's go with Sparc first, and thanks for that clarification.

approach, the Sparc, had different complications

A. Sparc --

2.0

2.3

Q. Let me just get a good question. That was a bad question on the record.

Can you tell me the problems you saw with the AMS Sparc device?

A. Yeah. With the Sparc, it was the top-down route. We had the problem with about a 10 percent bladder perforation rate. And then also we had the problem the connector of the trochar to the mesh was bulky.

So per our routine, after we would place our trochar we would perform a cystoscopic

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- A. I'm going to have to clarify that statement. Actually, that's incorrect, because on my CV that I turned in, we have written up the largest series of bladder outlet obstruction requiring urethrolysis. So in that series would be some of those Sparcs that were obstructed. So I don't -- I can't give you an exact number. So that has been published on, yes.
- Q. Okay. What was the rate of bladder outlet obstruction with the Sparc device in your hands?
- A. I don't recall me personally having one. The other -- my colleague had a few, about a 1 to 5 percent rate of obstruction.
- Q. Who is your colleague?
 - A. Dr. Deborah Lightner.
 - Q. And what was your rate of mesh extrusion with the Sparc?
 - A. I can just, off the top of my head, remember a few. I did not keep accurate records of the exact number of those.
 - Q. What was the rate of pain with the Sparc?
 - A. When we closely -- you know, when we asked patients to see them back, there was

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exam, and we were discovering, after we had attached the mesh and pull it through, we're tearing the bladder. So we developed these bad tears in the bladder, when we would unequivocally confirmed there was no bladder hole there to start off with. So that was an unacceptable complication right there.

And then we were having a problem as far as mesh extrusion and pain. Now, that's the Sparc complications.

- Q. What rate of mesh extrusion did you have with the Sparc device?
- A. It was around -- that's going to be very difficult to say, because it's looking back so far now
- Q. Let me withdraw and ask you a question that I think is easier to answer, a least it may lead me to where I may want to go.

Did you or anyone else ever publish on these problems with the AMS Sparc device?

- A. We never published. We spoke about -- I spoke about it. But I never had any publications on it.
- Q. When you say you spoke about it, what do you mean by that?

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- probably about a 5 percent risk, roughly, of suprapubic pain or vaginal discomfort with it.
- Q. It would be routine to have the patients come back following stress incontinence surgery with a mid-urethral sling?
- A. Yes or no. It depends if we're doing a study looking at something specifically. So we do not have a standard protocol to follow-up with them.
- Q. So when you put in a trans -- strike that.

When you put in a Sparc sling in a patient, am I correct you did not have a specific follow-up plan for the patient?

- A. We had a -- based upon efficacy only at that point in time. I remember, this is back in 2002 or 2003. We were -- and if the patients were happy, they were continent, then we did not have a scheduled follow-up for them.
- Q. For the autologous pubovaginal sling that you would perform around that time, did you have scheduled follow-ups for your patients?
- A. During that time frame I performed very few, almost down to zero a year. There may be an occasional one for a complicated

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Page 38 Page 40 There was no data. I recall trusting the company 1 reconstruction. So for a period of, what, seven, 1 2 eight years my numbers of autologous slings was 2 that there had been data, but there apparently was 3 3 negligible. not. 4 Q. The Aris sling is the one made by 4 Same answer for the Sparc that I 5 Coloplast, which is a transobturator approach; 5 believe that was already on the market when I 6 6 began using it. correct? 7 Q. But my question was for the Monarc. 7 A. Correct. 8 When you began using the AMS Monarc transobturator 8 Q. When you began using the Coloplast Supris sling, how many randomized control trials, 9 device, did you begin using it when it was 9 10 if any, were there on that device? 10 introduced to the market or sometime later? 11 11 A. I don't recall. A. It most likely would have been Q. As you sit here today, do you know if 12 sometime later. Again, I don't recall the exact 12 13 there are any randomized control trials on the 13 Coloplast Supris device? 14 14 Q. When you began using the AMS Sparc 15 A. I don't recall. 15 device, did you sit down and do a literature 16 Q. Do you know or do you -- you say you 16 search to ascertain what literature, if any, don't recall. Do you know? 17 17 existed on that device before using it? A. The product was brand-new to the 18 A. I don't know. I have not searched the 18 19 19 market. So there was no independent research on literature if there is or isn't. 20 it and definitely no long-term studies on it. 2.0 Q. When you began using the Coloplast 21 Aris transobturator sling, were there any 21 Q. When you began using either the 22 22 Coloplast sling products, the Supris or the Aris randomized control trials that existed at that 23 devices, did you sit down and do a literature 2.3 time? 24 24 A. Again, I don't recall back then, no. search to assess what information and data were 25 As you sit here the today, do you know 25 available on those products, if any, before using Page 39 Page 41 if there are any randomized control trials on the 1 those products? 2 Aris Coloplast sling? 2 A. I don't recall what I did at that 3 A. I don't know. I don't recall if there 3 point in time, but there definitely were no 4 4 long-term studies because it was new to the are or are not. 5 5 Q. When you began using the AMS Sparc market. 6 polypropylene sling, were there any randomized 6 Q. Now, when you began doing the AMS 7 7 control trials that existed on that device at the Monarc procedure, did you do a literature search 8 to see if there was any data on that particular 8 time? 9 9 device before using it in women? A. I would have to theorize there were 10 10 A. Again, same answer as -- there was no not because it was a brand-new product on the 11 long-term studies. I don't recall if I did any 11 12 Q. When you began using the AMS Monarc 12 literature searches on it or not. I was provided 13 device, were there any randomized control trials literature by the company, but, again, there was 13 14 on that device? 14 no long-term studies. 15 A. Same answer as before. I don't recall 15 Q. What literature were you provided by the company on the AMS Monarc sling? 16 if there were or were not. 16 17 A. Their IFU and then their product 17 Q. Did you began doing the AMS Monarc transobturator sling when it was introduced to the publicity statement, so to speak, that has the 18 18

> clinical studies or abstracts of clinical studies at the time they gave you the IFU or the publicity statement for the Monarc device?

> blurbs on the product and how it's to be used and

things like that, with, you know, criteria, those

Q. Did AMS give you any published

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type things.

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market or did you wait some time?

A. No. As I recall, I used the Mentor

ObTape first for transobturator route. Again, as

I was told by the company, I was the first in the

United States to do transobturator because it was

brand-new. So that answers a lot of questions.

state of Minnesota and possibly first in the

Page 42 Page 44 1 A. I cannot recall exactly what happened. 1 recall ever seeing one of my patients who was 2 The -- it is part of the routine of most of these 2 obstructed afterwards. 3 3 reps to provide you with papers. And I don't Q. Okay. What was your rate of obturator 4 recall that specifically with this one, no. 4 pain you saw with the Monarc device? 5 5 Q. What was your mesh exposure rate, if A. Initially was essentially 100 percent. 6 anything, with the Coloplast Supris device? 6 Markedly more than the ObTape. The ObTape when 7 7 A. That I am aware of, I've had two. you placed it, the patient initially did not 8 8 complain of any obturator foramen pain. The Q. How many mesh exposures did you have 9 with the Coloplast Aris device? 9 Monarc, they complained of it significantly 10 10 A. Oh, I'm sorry. I misspoke. Of all immediately postop. We had to give a lot more 11 the -- of all the Coloplast products combined, I 11 analgesic, keep patients in the hospital, those know of two that I've had so far. I don't know 12 12 types of things. So it was unacceptable problem 13 which one was which, though. 13 with the device from my perspective. 14 Q. What was the rate of obturator pain in 14 Q. Okay. So it would be fair to say for 15 the Coloplast stress incontinence polypropylene 15 your Monarc patients at six months or greater? 16 mid-urethral slings you used, those being the 16 A. I don't recall. And I don't know if 17 Supris and the Aris, you're aware of two mesh 17 we ever looked at that. 18 exposures? 18 Q. What was the rate of dyspareunia in 19 19 your Monarc patients? A. Correct. Q. Okay. When was the last time you used 2.0 20 A. Same answer as before. I don't 21 a polypropylene mid-urethral sling to treat stress 21 recall. We never did a formal study on that. So 22 urinary incontinence that utilized a top-down 22 I don't know. 23 2.3 approach? Q. Why did you have -- strike that. 24 A. That would have been the one that I 24 Did you find that the rate of the 25 did between August of 2013 to the present, and it 25 abscesses in your use of ObTape was unacceptable? Page 43 Page 45 would have been -- I can't recall exactly. It may 1 A. Absolutely unacceptable. 1 2 have been in 2013 or early 2014. 2 Q. Why did you have an unacceptable rate 3 Q. Have you ever placed a mid-urethral 3 of abscesses in the ObTape? sling utilizing a retropubic approach from the 4 4 A. That was with the design of the 5 bottom to the top like is employed with the TVT 5 product. It was a heavy weight, essentially zero 6 retropubic device? 6 pore mesh, polypropylene mesh that transmitted 7 7 A. Never. I've seen it. But I have not infection through the obturator foramen to the 8 8 performed it myself. buttock region. 9 Q. Okay. As between the -- so just so 9 Q. For your Coloplast polypropylene 10 I'm clear. You've done transobturator 10 slings, what type of efficacy did you see? 11 mid-urethral polypropylene slings, and you've used 11 A. Well, there's -- again, there's the 12 suprapubic top to bottom polypropylene slings to 12 suprapubic and the obturator route. We did 13 13 treat stress urinary incontinence in your career? never -- we never looked at our rate. So I can't 14 A. Correct. 14 tell you that. Though efficacy overall was 15 Q. What problems did you have with the 15 acceptable. AMS Monarc device, the transobturator device? 16 16 Q. With the AMS Sparc and Monarc devices, was your efficacy with those devices acceptable? 17 A. Similar problems as with the 17 18 suprapubic, the Sparc, in that the adaptor was 18 19 very large. So as you pulled it through the 19 Q. With the Coloplast polypropylene 20 obturator foramen, you had to pull very hard, tug 20 slings, did tissue integration occur with those 21 on it, stretching the mesh, and then it'd come 21 devices? 22 through forcefully. So obturator pain, patient 22 MR. SNELL: Object to form. 23 discomfort with it. We had dyspareunia. And then 23 A. The only way to know if there was

12 (Pages 42 to 45)

tissue integration is to do a revision surgery on

them. So we never did that.

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you had some vaginal extrusions. I do not

recall -- not that it didn't happen, I do not

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Page 46

Q. BY MR. SNELL: Did any of your patients with the Coloplast slings made of polypropylene placed at the mid-urethral come back to you with their slings falling out?

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A. Well, yeah, we had two that I mentioned that I know of came out. So you could say those two had poor integration, but I cannot speak to the others, because we did not have a routine follow-up scheduled for them.

- Q. For the two patients I thought you told me they had mesh exposures.
- A. They did. So that's poor tissue integration.
 - Q. What size were those exposures?
- A. I don't recall. They're probably 15 around the range of a centimeter or so. It was 16 not just a mild exposure. These required 17 18 treatment.
 - Q. And was the tissue integrated in the area beyond the mesh exposure in those two cases?
- 21 A. Again, I can't recall going back that 22 far. I know it was not at the location of the 23 extrusion, though.
- 24 Q. What was the pore size of the 25 Coloplast polypropylene mesh?

Page 48

- Q. BY MR. SNELL: What was the weight of the Coloplast slings you used for stress urinary incontinence treatment?
 - A. 70 grams per meter squared.
 - Q. For the AMS Sparc and Monarc slings, what was the pore size of those products?
- A. Well, it depends if it's coming out of the box or once you've implanted it. And so the answer is, I don't know because it was quite variable. When you placed it in the patient and then pulled on the trochars, pulled the sheath around it, it would elongate and pull and roll up. And so you'd get this rope look appearance to it, which the pore size was zero, essentially -excuse me, not zero. It was negligible.
- Q. How many Spare and Monarc slings did you place in your career?
- 18 A. And that's in a period of probably 19 two, maybe three years, a rate of 100 to 150 a 20 year.
 - Q. And when did you first see this roping and elongation of the Sparc and Monarc slings?
 - A. As soon as we started putting it in.
 - So you began -- just so I understand, as soon as you began seeing -- strike that.

Page 47

A. I don't know.

- Q. Was the Coloplast polypropylene mid-urethral sling mesh that you used mechanical cut or laser cut?
- A. It's actually different. It's hemmed. So the border of it looks completely different than the TVT or the Sparc. So you don't have the roping, the fraying particle loss with it or elongation. That's why I liked it over the Sparc procedure.
- Q. Did the Coloplast IFU for their sling products you used provide the frequency, severity, and duration of complications?
 - A. I don't recall what the IFU said.
- 15 Q. Did you read it?
 - A. Yes, I read it.
 - Q. As you sit here today, do you know whether those IFUs on the Coloplast mid-urethral slings ever reported frequency, severity, or duration of complications?

MR. CARTMELL: Objection. Asked and answered. He just said he didn't recall.

A. I don't recall, sir. It's been a long time. I know I'm required to review it, but I don't recall what they stated.

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As soon as you began using the AMS polypropylene mid-urethral sling, you began seeing the roping and elongation?

- A. Correct.
- Q. Yet you continued to place 100 to 150 of those a year?
- A. That is correct, because I didn't know the significance of it at the time.
- Q. Is the Sparc polypropylene sling mechanical cut or laser cut?
- A. I believe it is mechanical cut. In appearance it is identical to the TVT.
 - Q. Does it have blue striping as well?
- A. Has a blue thread through it. Prolene -- or I believe it's Prolene suture. I'm not sure. And that was placed there not initially. That was placed afterwards to prevent the problem of it rolling, because when you'd
- Q. And for the Monarc sling, is that mechanically cut or laser cut?

tension it, it'd roll up.

21 22 A. Same answer as the Sparc. It appears 23 to be mechanical cut. I can't speak for the cut. 24 I've not reviewed those documents, but it appears to be mechanical cut.

13 (Pages 46 to 49)

Page 50 Page 52 1 Q. Did you ever see particles falling off 1 A. I don't --2 of that mesh? 2 MR. CARTMELL: Let me object to the 3 3 A. When you would pull on it, either the form. Monarc or the Sparc, they're the same mesh, you 4 MR. SNELL: Okay. 4 would pull and then you would get these little 5 5 MR. CARTMELL: I'm not sure what tiny fibers, like just little things that you 6 you're talking about, frankly, and I'm not sure he 6 7 7 could actually see on your glove. And so the will either. So it may call for speculation. 8 8 answer to that question is yes. A. I've reviewed a lot of documents, some 9 Q. And that did not deter you from using 9 coming from Judge Goodwin. I don't recall the 10 those products? 10 nomenclature you're using. A. I was unaware of the significance at 11 Q. BY MR. SNELL: Okay. Have you seen 11 any orders by Judge Goodwin in the Mullins case? 12 the time. 12 13 Q. Well, you knew you were implanting 13 A. Again, same answer as before. I polypropylene into the body; right? 14 don't -- I've seen a lot of stuff coming from 14 A. Correct. 15 Judge Goodwin with his signature or whatever on 15 Q. And those little particles you would 16 it. I just don't recall the nomenclature you're 16 see on your glove were made of what? 17 talking about. 17 A. Polypropylene. 18 Q. I looked through your report, and your 18 Q. Does the Monarc have the blue striping 19 footnotes begin on page 11; correct? 19 20 as well? 20 A. That is correct. A. Yeah. It has a blue Prolene -- well, 21 Q. Actually, if you turn to page 9, you 21 22 I assume Prolene -- suture going through end to 22 have a footnote at the top, but there's no end. That's for tensioning purposes. That was 23 citation to it. 23 24 added later. 24 A. Yeah. That is correct. That's a 25 Q. Have you ever looked at the MSDS 25 typographical error, it looks, appears. Page 51 Page 53 sheets that pertain to the Sparc or Monarc 1 1 O. Okay. 2 products? 2 A. That's my comment. Yeah, there's no 3 A. No, I have not. 3 reason to reference that. 4 Q. Have you ever looked at the MSDS 4 Q. Okay. 5 sheets that pertain to the Coloplast sling 5 That's my comment. A. 6 products? 6 Q. Okay. So looking at your report, 7 7 A. I have not. beginning on page 11 where you have Footnotes, the 8 majority of what you cite -- that way we can just 8 Q. Why not? 9 A. Because I don't know how to find them. 9 see if we can agree to this. 10 Q. Am I correct; you never used the TVT 10 In your expert report -- strike that. retropubic device? 11 The majority of things that you cite 11 12 A. Correct. Correct. You're right. 12 in your expert report in footnotes are either Q. And when I say TVT retropubic, I mean Ethicon company documents, testimony by company 13 13 14 the original, still-on-the-market-today Ethicon 14 witnesses, or papers concerning hernia mesh or manufactured TVT retropubic device. 15 15 prolapse. A. Correct. The bottom up. They also 16 16 Is that a fair statement? have a top-down. But bottom line, I have not used 17 17 MR. CARTMELL: Object to the form. any Ethicon product for stress urinary A. Well, the majority -- you're correct. 18 18 19 19 There's internal documentation. Many depositions. incontinence. 20 Q. Okay. So that makes it fast. Great. 20 There's the significant amount of medical 21 21 Before writing your report in this literature in the canine model, rabbit model, 22 case, did you review the order issued by the judge 22 human, and then there's TVT references in there, 23 regarding the design defect claim in Mullins, and 23 too. So I can't say that -- there's a lot of 24 what the judge expected the parties to focus on in 24 different references from a lot of different 25 this matter? 25 sources.

14 (Pages 50 to 53)

Page 54 Page 56 1 Q. BY MR. SNELL: Well, for the medical 1 large study. It's one of the bits of evidence. I 2 literature, it's correct, isn't it, that you cited 2 try to look at all evidence out there, whether it 3 3 be pro or con for mesh so I can get a balanced to a lot more hernia literature than you did TVT 4 4 opinion on this. And this is one of the literature? 5 5 A. That is -documents. And it's an updated one. 2015. б 6 Q. Okay. Under the background, they MR. SNELL: Object to the form. 7 A. That is correct, because TVT is a 7 state that the mid-urethral sling operations are a 8 8 recognized minimally invasive surgical treatment hernia mesh. 9 Q. BY MR. SNELL: And if we go to the 9 for stress urinary incontinence. 10 back of your report, on page 32, you cite to the 10 You see that? recent Cochrane Review by Ford, et al.? 11 11 A. That's what they state, yes. A. Page 32? I'm sorry. Q. You would agree that the mid-urethral 12 12 13 Q. Yes. Footnote 97, I see. 13 sling is minimally invasive compared to the A. That is correct. autologous pubovaginal sling which requires 14 14 O. What is a Cochrane Review? 15 harvesting of tissue from the woman? 15 A. Cochrane Review -- well, I actually MR. CARTMELL: Object to the form. 16 16 17 have a copy of it here. A Cochrane Review -- I 17 A. I would agree, minimally invasive is 18 can give you the exact nomenclature that they use. 18 always a statement, has to be with qualifiers or a comparison to. And I think it would be ligament Yes. The Cochrane database, which is a -- I 19 19 2.0 believe it's government sponsored, that is in 20 to say the mid-urethral sling is less invasive 21 charge of analyzing studies and a combination of 21 than the autologous sling. 22 studies to hopefully be able to come up with Q. BY MR. SNELL: Would you agree that 22 analysts -- analysis of papers and their efficacy, 2.3 23 the mid-urethral sling, particularly the TVT 24 their quality, et cetera. 24 retropubic is less invasive than the Burch 25 (Exhibit 4 marked.) 25 colposuspension? Page 55 Page 57 1 Q. BY MR. SNELL: I've handed you 1 MR. CARTMELL: Same objection. 2 Exhibit 4. This is the intervention review of 2 A. You know, possibly. But, again, 3 mid-urethral sling operations for stress urinary 3 depends how you do it. Some people can do it with a very small incision, and it's -- but it depends 4 incontinence in women by Dr. Ford and others; 4 5 5 upon -- again, it's very difficult because you correct? 6 A. Well, this is the abbreviated form of 6 have to pass those trochars blind. So that's an 7 7 it, the summary. invasive thing. It's a stab wound to a patient. 8 8 Q. Right. What's the difference in making an incision and 9 A. The real document is -- I don't know 9 putting your stitches in. But you could say, yes, 10 how many pages, but is a very big document. 10 it is going to be less -- the TVT is going to be Q. Right. 11 less invasive somewhat than the Burch. 11 12 A. But, yes, this is the summary, as you 12 Q. BY MR. SNELL: Would you agree that the TVT retropubic device is less invasive than 13 have stated. 13 14 O. And this is the same Cochrane Review 14 doing an MMK? 15 vou cited: correct? 15 A. I think, again, same as the Burch 16 A. Correct. One by Ford, et al., in 16 answer. The MMK requires more lateral dissection. 17 2015. 17 So I think that's a fair statement. Q. And it looks like -- the publication Q. The MMK, as I understand it, has about 18 18 status and date, this actually -- Cochrane Review a 2.4 percent risk of the osteopubitis. Am I 19 19 20 was published this summer; correct? 20 saying that correctly? 21 21 A. July. Correct. A. Correct. It should not be that high 22 Q. And if you look in the abstract -- let 22 of a percentage, but that is a risk of it, 23 me ask you this: Why did you cite to the Cochrane 23

15 (Pages 54 to 57)

Q. But you've read literature summarizing

that risk is 2.4 percent by authors Drews and

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Review?

A. Multiple different reasons. It's a

Page 58 Page 60 1 others? 1 Q. And what is the importance, if any, of 2 A. I've read literature from other people 2 Oxford Levels of Evidence? 3 A. It is trying to quantify or 3 saying it is less than 1 percent. But I'm not going to deny it. Yes, there is a risk of that, 4 demonstrate or show individuals the data that is 4 5 5 and that's probably one of the reasons it's not gathered from various different studies. It does 6 6 not mean that other studies are invaluable, such done very much. 7 7 Q. And how did patients in the MMK -as case reports. But when you're trying to 8 8 compare apples to oranges or different types of strike that. 9 apples to each other, you need to compare them 9 The MMK is a open procedure? A. Correct. I don't recall anybody doing 10 10 directly to each other. And you get arguably the it laparoscopically, but it's a procedure not done 11 better data from that type of a study. 11 very often anymore. 12 Q. Level 1 you said was an RCT? 12 13 Q. How does osteopubis occur in open 13 A. Correct. procedure like the MMK? 14 O. What is level 2? 14 A. Level 2 is a case controlled trial. A. They're thinking it's irritation to 15 15 the bone with the sutures. 16 Comparisons are made, but they're not randomized. 16 17 Q. The main results of this Cochrane 17 Q. You pulled out a document. Could we Review -- I want to go down a little bit. 18 mark that as Exhibit 5? Thank you. Oh, okay. 18 First of all, they included 81 trials; 19 (Exhibit 5 marked.) 19 Q. BY MR. SNELL: I just want to look at 20 correct? I'm on this page here, Doc. 20 21 A. Oh, I'm sorry. Yes. 21 it real quick, and then I'll give it right back to 22 O. That evaluated 12,113 women; correct? 22 you. So where would the Cochrane Review A. Correct. 23 23 24 Q. The quality of most outcomes was 24 that you cited in your expert report rate on that 25 moderate; correct? 25 level of evidence pyramid? Page 59 Page 61 1 A. Yes. It reads, "moderate, mainly due 1 A. Cochrane Review is really not on it. 2 to bias or risk of imprecision." 2 Cochrane Review is an analysis of all the data out 3 Q. And the vast majority of these studies 3 there. It's like a meta-analysis. Meta-analysis which are used extensively don't fall into these 4 that were included in the Ford Cochrane Review 4 5 5 categories. These are smaller studies. Cochrane that you cited are what are called randomized 6 control trials; correct? 6 or meta-analysis are a combination. Like they 7 7 A. I'm sorry. I don't understand your mentioned, 81 trials that evaluated 1200 patients. 8 question. Can you -- there's misspellings on 8 Hence the reason why there'll be weaknesses or 9 that. So can you -- I'm sorry. 9 errors within those studies because they're 10 Q. Do you know what a randomized control 10 analyzing potentially bad studies. 11 trial is? Q. I've seen a similar evidence pyramid 11 12 A. Yes, I do. 12 that has on top, above an individual randomized control trial, something called systematic reviews 13 Q. Of course you do. What is a 13 14 randomized control trial? in meta-analyses. 14 15 A. Randomized control trial would be a 15 A. Yeah. That's why I mentioned 16 level 1 trial on the Oxford education levels, 16 meta-analysis. I'm not familiar with that. Q. Okay. 17 where there are two different groups that are 17 equally randomized to two separate treatment arms. A. But, again, as I mentioned, 18 18 19 And then you do the same evaluations and the same meta-analysis, if you take bunches of poor quality 19 20 pre and postop description of patients and studies, you're not going to get out of that 20 21 magically a good quality study. If you take dog outcomes. 21 22 Q. Okay. You mentioned the Oxford. I've 22 doo and make a lot of dog doo, you still have dog doo. So you have to be careful on those types of 23 heard of the Oxford Levels of Evidence. 23

16 (Pages 58 to 61)

analyses. And that's why they mention here in

this Cochrane one, the quality, at most, was

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Is that what you're referring to?

A. Yes. That's fine.

Page 62 Page 64 1 moderate, and they indicate the reason why. 1 A. There's a paper by Chaken, et al. 2 Q. Do you rely on meta-analyses? 2 There's another one by McGuire's group at 3 A. I look -- I'm a reviewer for 3 University of Michigan, both of which had 4 15 different journals, and twice been awarded the 4 100 percent patient involvement. Some up to -best reviewer in Journal of Urology. I look at 5 5 involvement. Contact. So zero dropout rate 6 6 them with skepticism, because it's just -- again, except for a death, and up to 10 years of 7 as I mentioned, you have to know what goes on on 7 follow-up. 8 8 each and every study to know if it's a good Q. Neither one of those studies are 9 quality study. If you take a lot of good quality 9 randomized control trials; correct? 10 studies and put them together, that's quality. 10 A. Correct. 11 And that's why there's going to be selection, and 11 Q. They were both retrospective cohort that's why certain studies won't meet criteria. 12 studies; correct? 12 13 But if you just take everything and analyze it, 13 A. Yeah. The data was prospectively gathered, retrospectively reviewed. 14 again, it's the -- a lot of dog doo. You got a 14 15 big dog doo at the end. Q. And they were single center studies; 15 16 Q. So you are aware there's a Cochrane 16 correct? 17 Review for the pubovaginal sling published by 17 A. Correct. 18 18 Q. And Ed McGuire is the surgeon you're Remmen. 19 A. I don't recall that title. I'd like 19 referring to out of Michigan; correct? 2.0 to see that one. I don't recall that one. 20 A. Well, he was actually down in Houston 21 Q. Let me ask you this: Do you know if 21 at the time that he wrote it, but he had been in 22 there's a Cochrane Review that analyzes the 22 Michigan. 2.3 pubovaginal sling? 23 Q. For the Burch colposuspension, are 24 A. Yes. By Remmen. 24 there any high quality studies that you're aware 25 Q. So if I mispronounce a name, you can 25 Page 63 Page 65 answer yes and correct me. I'm okay with that. 1 1 A. Yeah, there are several. I have a 2 And the quality of evidence on the 2 Langer, et al., 10 to 15 years of follow-up, Burch 3 pubovaginal slings by Remmen was noted to be poor; 3 colposuspension, from internal -- International 4 4 Urogyn Journal. 5 5 Q. Do you recall what the loss to A. I don't recall. I'd have to see that. 6 I have no reason to think -- I have no reason to 6 follow-up was in the Langer Burch paper? 7 think that you would be wrong with that, though. 7 A. Of the 156 patients, 29 were admitted 8 8 I'm going to see if I have that the study. Yeah. for not completing a 10-year follow-up. 8 9 I don't -- without knowing how to spell it, I 9 patients died. Can't blame them for that. 21 10 don't know how to find it. Okay. 10 could not be located. So actually -- so they had -- death would not factor into it. So you 11 Q. You would agree that overall the 11 12 quality of studies on pubovaginal slings is poor? 12 have 21 out of 1156 were lost to follow-up. A. I would say the overall studies on 13 13 Q. The 29 patients, what happened with 14 incontinence, in general, are moderate to poor. 14 them? 15 There are very few high quality studies out there. 15 A. Well, that's what I'm saying. 29 16 Q. But my question is specific to the 16 patients were not studied. 8 died. autologous pubovaginal sling. You would agree for Q. Okay. 17 17 18 the autologous pubovaginal sling, the quality of 18 A. And 21 could not be located. So that 19 evidence on that procedure is poor? 19 equals a percentage of 13 percent lost to 20 A. As with all the other treatments, I 20 follow-up. 21 would agree with you, yes. 21 Q. And one of the issues or problems with 22 Q. You mentioned there were a few high 22 longer term studies is that patients can die, 23 quality studies. What would those be? 23 succumb to mortality, as you follow over a decade A. For which procedure? 24 24 or more; right?

17 (Pages 62 to 65)

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A. Correct.

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Q. For the autologous pubovaginal sling.

Page 66 Page 68 1 Q. And that's recognized in the field as 1 to search for that. 2 an issue when looking at randomized -- strike 2 Q. Isn't 3.9 percent rate of dyspareunia 3 with the Burch acceptable? 3 that. 4 When looking at longer term studies? 4 A. Well, I think ideally you want a zero 5 5 A. Yes and no with that. Death is looked percent dyspareunia, but you'd have to know and 6 at differently than loss -- than a true loss to 6 which this study does not have, which I would 7 7 follow-up. They had the 21 patients that were not critique if I were reviewing it, is a qualifier of 8 8 able to be located. Those are important. The 8 how bad that dyspareunia is. Is it dryness or is 9 that died are still important. It's sad they 9 it a complete inability to have intercourse due to 10 died, but you look at that data differently. And 10 pain, but it says 3.9 percent. 11 statistically it's different. And that's a 11 Q. Right. And my question is: Is that 3.9 percent rate of dyspareunia with the Burch in 12 follow-up over 12.4 years, median follow-up. 12 13 And you also asked the question about 13 the paper review reference acceptable? other studies. There's also Herbertsson, et al., 14 MR. CARTMELL: Object to the form. 14 A. Again, I need to know if it was H-e-r-b-e-r-t-s-o-n, and then I'll spell the next 15 15 16 one, K-j-o-e-h-e-d-e, which had 14-year follow-up, 16 de novo or not. 17 and those are specifically on Burch. So here's 17 Q. BY MR. SNELL: So you can't answer my 18 three studies with greater than 10 years of 18 question? 19 19 follow-up. A. I would, if I can find dyspareunia in here, where they discuss it. Yeah. I don't see 20 Q. Can I see the paper you were looking 20 21 at real quick. Can we mark this, Doctor, as an 21 it. We can take a long time. I can search for 22 exhibit? 22 it. But I would need to see how they're describing it in those things. 23 A. Sure. 23 24 MR. SNELL: What number. 24 Q. I didn't see it either. 25 25 That is an issue with many studies. (Exhibit 6 marked.) Page 69 Page 67 1 O. BY MR. SNELL: Look at table 5, 1 It is not included. That's why we keep saying 2 Doctor. 2 moderate quality. No. There's only -- in the 3 A. I'm there. 3 document there's only one time they mention Q. There's a 22 percent rate of detrusor 4 4 dyspareunia, and it's in that graph. So there's 5 5 instability; correct? no qualifiers to it. 6 A. That is what they quote, yes. 6 Q. But it's still a paper you pointed me 7 7 O. And what is that? to as important with regard to the Burch A. That -- I'd have to see how they 8 8 colposuspension; correct? 9 define it. De novo detrusor instability was found 9 A. That is correct. 10 in 17 patients. So that means, following the 10 Q. Back to the Cochrane Review. We were 11 procedure, it caused de novo overactive bladder 11 looking at the Results section in the fourth 12 symptoms. So their overall rate they state is 29. 12 paragraph. It says, "The overall rate of vaginal 13 But only 17 of those were caused by the procedure. tape erosion/extrusion/exposure was low in both 13 14 Q. Okay. So about two-thirds were caused groups." It was 21 out of 1,000 for retropubic 14 15 by the procedure? 15 mid-urethral sling. 16 A. Yeah. 58 percent. So 17 out of 127 16 Do you see that? had de novo. 13 percent. So when you look at 17 17 A. That is what they state for the study, graphs and tables, that's why it's difficult to be 18 18 yes. a good reviewer. You have to look at the whole 19 19 That's 2.1 percent; correct? Q. 20 big picture. Not just one graph. That is -- that is what they state, 20 A. 21 Q. All right. The rate of dyspareunia 21 yes. 22 was 3.9 percent in this Burch study? Q. The 2.1 percent would be the incidents 22 23 A. That is what they quote. Again, I'd 23 of the mesh exposure; correct? 24 have to look at the study exactly, if that's 24 A. Well, that's what they state with the

18 (Pages 66 to 69)

understanding that these are short-term, moderate

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de novo or if that's preexisting or not. I'd have

Page 70 Page 72 quality studies, within the hands of high-quality 1 1 O. BY MR. SNELL: Let me reask the 2 large volume surgeons. 2 question. 3 3 Q. So these 31 trials that they assess, For the Burch colposuspension, are 4 did all of those trials involve short-term 4 there any studies that have lifelong follow-up of 5 the patients? 5 follow-up? 6 6 A. As I stated, the Burch is not a A. Well, in the situation of meshes, this 7 7 is an implantable permanent medical device. medical device. So, no, there are no long-term 8 8 Anything short-term -- or short of lifelong studies, but there don't need to be because 9 follow-up is going to be inadequate, from my 9 there's no permanent implantable product in the 10 10 perspective. So this is going to be short-term. patient. 11 I doubt any of these are over 10 years, and even 11 Q. But the Burch can lead to dyspareunia, that, in my opinion, is inadequate. But you'd just like the paper you showed me; right? 12 12 A. No. I disagree with that. As I 13 have to look at each individual study to find out 13 14 stated, dyspareunia was recorded, but I have no 14 what follow-up duration was. 15 MR. SNELL: Move to strike as 15 idea the preoperative incidence of dyspareunia. 16 16 Q. So it's not important to track nonresponsive. 17 Q. BY MR. SNELL: The 31 trials that were 17 dyspareunia with the Burch colposuspension? 18 assessed, is it your testimony that all of those 18 A. No. You are spinning my words. 19 trials are short-term trials? 19 That's incorrect. I stated, in that paper there's 2.0 MR. CARTMELL: Object to the form. 20 one word of dyspareunia. I don't know; did 21 A. I would have to see this complete 21 10 percent have dyspareunia preop? They don't 22 document to see each of those follow-ups to see if 22 mention it. Hence the quality of the paper goes 2.3 they're adequate or not. 23 down. 24 Q. BY MR. SNELL: Is there any lifelong 24 So from your argument, the 10 percent 25 follow-up data on the Burch colposuspension, 25 could have been preop, now it's down 3.9. So they Page 71 Page 73 reporting a mean follow-up of 30, 40, 50, 60 years 1 did a good job. 2 in women? 2 Q. Do you know which way it went? 3 A. Well, as you've pointed out, it's not 3 A. As I stated, the paper does not a medical device. There doesn't need to be. 4 4 mention that. 5 5 There can be for efficacy, but for safety and Q. Is it important to track dyspareunia 6 complications, that's going to be all 6 with the Burch colposuspension? 7 7 perioperative. So there does not need to be. MR. CARTMELL: Object to the form. 8 A. Dyspareunia and safety of the device 8 You're comparing apples to oranges. 9 MR. SNELL: Move to strike as 9 is always important to track. It's going to be 10 10 different for different products. If you have a nonresponsive. 11 permanent implantable device, you have to follow 11 Q. BY MR. SNELL: For the Burch 12 colposuspension, are there any lifelong follow-up 12 it lifelong. If you have a device that's 13 13 absorbed, gone away, it's not as important to 14 MR. CARTMELL: Objection. Asked and 14 follow. 15 answered. He just answered your question. 15 Q. BY MR. SNELL: So it's not as MR. SNELL: I don't care whether he 16 16 important to follow dyspareunia with the Burch thinks it's necessary or not. I'm asking him is colposuspension; is that what you're saying? 17 17 it -- all right. Do those exist. That's a yes or A. For as long a duration. 18 18 19 19 Q. Is it important to follow and assess no or he doesn't know. 20 MR. CARTMELL: Well, he said no and 20 dyspareunia with the Burch colposuspension out to 21 explained why it's not important. 21 10 years? 22 MR. SNELL: I don't think he said no, 22 A. It would be an interesting fact. 23 Tom. He gave me a speech. 23 However, again, there's no permanent devices 24 MR. CARTMELL: Well, you can say no, 24 placed in a woman. So I am more concerned about

19 (Pages 70 to 73)

the shorter term, five years, those type things.

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and explain again why it's not important.

Page 74 Page 76 1 But even that, the suture's absorbed. It's healed 1 sling, as you described. 2 up. So really you can't compare TVT mesh, or any 2 MR. SNELL: Move to strike everything 3 3 mesh for that matter, and the Burch or autologous before "it has not been done." 4 4 fascia for that matter. Q. BY MR. SNELL: A registry being 5 5 Q. There's scarring when you do a Burch mandatory with monitoring yearly until the death 6 6 of all women has never been performed for the colposuspension; correct? 7 A. Yes. By six weeks it's healed up. 7 Burch colposuspension; correct? 8 8 Q. And it's not important to assess A. As I've mentioned already, because 9 whether there's any painful scarring in a Burch? 9 there's no permanent device implanted in the 10 A. Absolutely there is, but the duration 10 woman, it is not necessary, but to answer your 11 of the follow-up, the perioperative morbidity is 11 12 extremely important. But after you've done the 12 MR. SNELL: Move to strike everything 13 surgery, and there's healing that's happened, 13 before "to answer your question, yes" as 14 which 98 percent happens at six weeks, one, two, 14 nonresponsive. 15 five-year data is important to look at. But it's 15 Q. BY MR. SNELL: For any stress urinary 16 not as important because you don't have the 16 incontinence surgery that's ever been performed 17 progressive scarring, et cetera, that you see with 17 that you are aware of, has there ever been a 18 the polypropylenes. 18 registry conducted that was mandatory that 19 Q. How would one go about assessing the 19 monitored every woman yearly until her death? 20 lifelong -- give me a second. 20 A. Unfortunately, no. And that's why 21 Can I see the exhibits. 1, 2, 3. You 21 we're in the situation we're in now. 22 can hold on to this one. The Burch study we 22 O. Looking back at the Cochrane Review 23 marked a minute ago. 23 you cited in your expert report --24 A. Oh, I'm sorry. I took that back. 24 A. Yes, sir. 25 25 Q. -- it says in the next paragraph, "A There you go. Page 75 Page 77 1 Q. Okay. That way she has it. retropubic bottom-to-top route was more effective 2 A. Okay. 2 than top-to-bottom route for subjective cure." 3 Q. You have 5 over there? 3 Do you see that? A. Oh, I'm sorry. I'm taking those. 4 4 A. That is what is stated, yes. 5 5 O. That's okay. Q. And the TVT is the retropubic 6 All right. You can hold on to that 6 bottom-to-top route; correct? 7 7 one. I still have some questions. A. As far as I know, that is the only 8 8 How would one go about conducting a bottom -- with the understanding -- let me back 9 lifelong study on the Burch colposuspension? 9 up. 10 A. A registry would be mandatory where 10 With the understanding that from my 11 these individuals are followed. And you can't 11 understanding at this point right now, TVT is the 12 have a 30 or 40 or 50 percent fallout rate. And 12 only one on the market bottom-up. So I don't know they have to be monitored on a yearly basis until 13 13 if there's another one on the market. 14 death. And then the true complication rate in 14 Q. You have looked at the -- you looked 15 those highly experienced surgeons' hands would 15 at the entire Cochrane Review from 4/2015 over --16 then be known. 16 I think it's over 200 pages? Q. And a registry being mandatory 17 17 A. Very long document, yes. monitored yearly until a woman's death has never Q. Right. Right. And you saw 18 18 19 been performed for the autologous pubovaginal 19 that the retropubic bottom-to-top studies were 20 sling; correct? 20 studies that assessed the TVT retropubic device; 21 21 A. Again, for the same mentioned -- as correct? 22 the reasons I mentioned for the Burch. There's no 22 A. I don't recall that. Again, I have no 23 permanent implantable device placed in that woman. 23 reason to doubt that. I'm just saying, there are 24 So the perioperative morbidity is very important, 24 a lot of companies that used to make slings,

20 (Pages 74 to 77)

Boston Scientific, Bard, et cetera. I just don't

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but it has not been done for the pubovaginal

Page 78 Page 80 1 know of another one. If that study says there's 1 Q. It wouldn't surprise you to learn that 2 only one bottom-up and it's the TVT, I can't 2 there were no randomized control trials on the 3 3 disagree with that. I just don't know right now. Supris; correct? A. As I stated earlier, I was unaware of 4 Q. You certainly know that the TVT 4 5 5 any, and hence the reason why sling data is bad. retropubic device has been studied in more 6 randomized control trials than any other stress 6 Or poor quality, let's put it that way. 7 7 urinary incontinence surgical device; correct? Q. Have you conducted an analysis of the 8 8 MR. CARTMELL: Object to the form. literature regarding slings to see whether any of 9 A. I have -- I have heard a lot of facts 9 the other manufacturers' polypropylene slings have 10 10 like that. I have never independently verified been subjected to more randomized control trials 11 that to be true, but I don't doubt its existence. 11 than the Ethicon TVT retropubic device? 12 12 Q. BY MR. SNELL: It says the retropubic A. I have not done any independent 13 bottom-to-top route also "incurred significantly 13 research on that. less voiding dysfunction and led to fewer bladder 14 Q. Have you done any PubMed searches to 14 perforations and vaginal tape erosions"; correct? 15 assess how many hundreds or thousands of studies 15 16 A. That is what they state, yes. 16 there are on the TVT retropubic? And when I say 17 Q. And those would be benefits of using a 17 TVT -- strike that. 18 retropubic bottom-to-top route like the TVT 18 When I say studies, I'm not limiting 19 it just to randomized control trials. 19 retropubic employs as compared to a top-to-bottom 20 route; correct? 20 I understand. 21 MR. CARTMELL: Object to the form. 21 Q. I mean cohort studies, studies that 22 22 A. Well, correct except that Ethicon would comport with the level of evidence pyramid. levels 2 and 3 that you identified. 23 makes a TVT-AA, which is top-to-bottom. So based 23 24 upon what they're saying here, TVT-AA would be 24 MR. CARTMELL: Object to the form. 25 included in the top-to-bottom. So this would be 25 A. My methodology that I use when I Page 79 Page 81 very worrisome that perhaps that TVT product approach any of these projects is going to involve 1 2 2 employed in that fashion is actually more multiple different facets, but one of them is 3 dangerous. 3 using the PubMed search engine, which is -- as far 4 4 Q. BY MR. SNELL: Have you ever assessed as I know, the largest search engine available, 5 the literature on the TVT-AA device? 5 funded by the NIH. And when I search just TVT, only TVT, it comes up with about 1300 papers. But 6 A. There's limited data out there. 6 7 7 Q. But have you assessed it? that's going to be TVT-Secur, TVT-AA, TVT -- all 8 A. Yes, I have assessed it, and there's 8 the TVTs. 9 9 Q. BY MR. SNELL: Did you do any other limited data on it. 10 O. And how does the voiding rates compare 10 search string modifiers like "tension-free vaginal 11 between the TVT retropubic and then the top-down 11 12 TVT? 12 A. I don't recall that --13 13 Q. TVT retropubic? A. The data overall with all sling 14 products is very poor. With TVT-AA it's even 14 A. I don't -- well, TVT is going to capture all TVTs. Tension-free vaginal tape -- I 15 worse. So I don't know. I cannot quote you a 15 16 study looking at that, but I'm just saying the 16 don't recall if I used that, I may have. But I Cochrane analysis possibly raises the issue of a 17 searched multiple different factors looking at, 17 18 18 you know, mesh complications associated with those TVT-AA. 19 19 Q. As you sit here today, you don't know, things. 20 though whether the TVT-AA was assessed in 20 Q. How many studies on TVT did you locate 21 21 top-to-bottom in the Cochrane Review? on PubMed? 22 A. That's what I'm saying. 22 A. I found roughly 1300 on all TVT Q. Do you know whether the Supris was products, the entire product line. 23 23 24 assessed in this Cochrane Review? 24 On just TVT retropubic or TVT classic,

21 (Pages 78 to 81)

I can't give you a number.

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A. I don't know.

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Page 82

Q. Okay. How would the TVT retropubic have less voiding dysfunction than a top-to-bottom device like the Sparc that you used?

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A. With my training in neurophysiology, neuroanatomy and bladder dysfunction, it does not make any intuitive sense why that difference would be. You're passing a trochar up -- from bottom up or top down, you should be -- there's -- the voiding dysfunction should be identical.

There's going to be variables, such as the mesh, the experience of the surgeon, the amount of tension placed on it, the patient factors in there. That's where the Cochrane analysis -- we don't know; were the patients morbidly obese; were they diabetics; their previously existing bladder dysfunction. All those factors I don't know.

Q. So I guess the answer to my question then would be, you do not know how there would be less voiding dysfunction seen with the TVT retropubic as compared to a top-to-bottom device like the Sparc; correct?

MR. CARTMELL: Object to the form. Asked and answered.

A. Well, the statement, quote/unquote, I

Page 84

- incision you did when you used the Sparc? A. Be 1 to 1.5 centimeters.
- Q. And what was the other top-to-bottom device you used?
 - A. The Supris.
 - Q. Supris. What was the size of the vaginal incision you used with the Supris?
- 8 A. Same thing. 1 to 1.5 centimeters, 9 mid-urethral.
 - Q. And did you do blind passage of the trochars with any of those devices?
 - A. Correct. With the Supris and the Sparc, that is the identical length of blind passage as with the TVT.
 - Q. And did you do blind passage with any of the transobturator slings you performed?
 - A. Yes. But it's a degree -- significant degree less, because you have your finger in the obturator foramen. So you're passing that around the obturator foramen, which is about 1 centimeter, but that would be blind.
 - O. All right. You would use your finger and that's known as haptic or tactile feedback; correct?
 - A. I suppose. It is tactile. It's

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don't know, implies I haven't thought about it.

2 I've thought a lot about it. It does not -- I 3 cannot come up, to answer your question, with a

4 logical explanation why that's occurring. There's

5 a variable we don't know. Is it poor quality 6

studies? Patient variables? Those issues. As I

mentioned earlier in the previous question.

Q. Okay. How is it that the TVT retropubic would have less vaginal tape erosions than a top-to-bottom route, such as the Sparc that you use?

A. Well, I do not use the Sparc and haven't used it for 10 years or so. Or less than that. Excuse me.

But, again, we have to include in there -- unless you can show me in the Cochrane study does not include the TVT-AA, that there can be some of the Ethicon product in there.

But to answer your question, it does not make logical sense, based upon the anatomical approach, to have more or less or vaginal extrusions. That's why there's going to be some of a variable in there that we don't know in these studies.

Q. What was the size of the vaginal

Page 85

1 feedback. Yes, you're right.

> Q. And that's commonly done in pelvic surgery?

A. Pelvic surgery does a lot of surgery by proprioception. Yes, by feel.

- Q. And for the autologous transobturator pubovaginal sling, part of that procedure is blind; correct?
- A. No. I disagree with that because when you do a different dissection, you dissect through the endopelvic fascia bilaterally. You dissect along the pubic bone up to the rectus muscle. Then you're able to palpate from your incision in the abdomen, feel right where your finger is. So you pass it through the rectus muscle and then on to your finger. So there's no blind passage of 5 to 10 centimeters like with the Sparc or the TVT.
- Q. But there is a blind package in that procedure. It's just shorter; correct?
- A. A significant -- well, no, there's no organs that can get away. That's why there's no bladder perforation, or extremely rare. In my experience, I've never perforated the bladder with it. Where I had a 10 percent Sparc bladder perforation. And you're passing it right onto

22 (Pages 82 to 85)

Page 86 Page 88 1 your finger. So there's -- you know, we can 1 in the Langer paper; correct? 2 splice and say, yes, there is some blind passage, 2 A. Correct. 3 but it's right onto your finger. So you're 3 Q. And then the Kjoehede. And I'm not passing it through the rectus muscle. So you're 4 sure if I'm pronouncing that correct. 5 5 talking a centimeter. Do you know if that's right? 6 Q. In the autologous pubovaginal sling 6 A. Yeah. My Swedish is not very good. 7 But that would be reference number 9. 7 placement there's blind passage performed; 8 8 Q. Okay. A. I've already answered that. That's 9 9 A. Correct. 10 what I just stated. 10 Q. And do you know what percent of the 11 Q. I'm not talking about the 11 women were dry in follow-up in the Kjoehede study? 12 A. I do not. I'd have to look at the 12 transobturator. 13 A. Oh, I'm sorry. You said 13 study. 14 14 transobturator? Q. Do you know what percentage of the 15 Q. In the autologous pubovaginal sling 15 women were dry in follow-up of the Herbertsson 16 16 that you do. study? 17 17 A. Isn't that what I just answered A. No, I'd have to look at the study. 18 18 Q. And I think that's spelled can already? 19 H-e-r-b-e-r-t-s-s-o-n, published in Acta, A-c-t-a, Okay. I mean, that's the same answer 19 Obstet Gynecol Scand, 1993, volume 72, pages 298 2.0 as what I just stated. That your finger's right 20 21 up there against the rectus muscle. The needle 21 to 301. 22 goes right through the rectus muscle onto your 22 Correct? A. That is correct, yes. finger. So there's no blind passage, like the 5 23 2.3 24 to 10 centimeters like with the TVT or the Sparc. 24 Q. And looking back at the Cochrane 25 Q. I may have got confused or maybe you 25 Review that we were discussing, under the author's Page 87 Page 89 didn't hear my earlier question right. 1 1 conclusions. 2 For the autologous transobturator 2 Yes, sir. Sorry. 3 pubovaginal sling, that was my initial set of 3 Q. You have it there? 4 questions. 4 A. Yes, I do. I have both. I have my 5 5 copies and then your copy. Those involve blind passage; correct? Q. Great. For the record, can we mark 6 A. That would be the same -- actually, 6 7 7 less than with the mesh slings because we dissect your copy, too, then? 8 8 deeper right underneath the muscle. So the same Sure. A. 9 9 answer would be for the abdomen as with this. Q. Just so I can look at it at some 10 10 We're passing it through the obturator foramen point. onto your finger. So it has no chance of getting 11 11 (Exhibit 7 marked.) 12 into the bladder. So if you want to define that 12 Q. BY MR. SNELL: So Exhibit 7 is your 13 13 copy of this Cochrane Review by Ford, et al. we've as blind, I'll give that to you, but it's a --14 it's a safe passage. It's right on your finger. 14 been discussing? A. That is correct. This is the abstract 15 I'm sorry. I misunderstood your first question. 15 off of PubMed. 16 MR. SNELL: It's okay. Let's take a 16 17 break. We've been going for a bit. I want to use 17 Q. Okay. And under the author's conclusions, it says, "mid-urethral-urethral sling 18 the restroom, if that's okay. 18 19 19 operations have been the most extensively MR. CARTMELL: Sure. 20 20 researched surgical treatment for stress urinary (Recessed from 11:22 a.m. to 21 21 11:41 a.m.) incontinence." 22 22 You see that? Q. BY MR. SNELL: Back on the record. 23 Two of the studies you mentioned in 23 A. Yes, I do. 24 24 addition to this study by Langer, L-a-n-g-e-r, Q. And you will agree with that; correct? 25 were studied by Herbertsson, which is reference 8 MR. CARTMELL: Object to the form.

23 (Pages 86 to 89)

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Page 90
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         A. Again, I have no reason to doubt it.
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                                                                    MR. SNELL: Stop it. Knock it off,
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      But I've not done independent research on that
                                                         2
                                                              Tom.
 3
                                                         3
      knowledge.
                                                                    MR. CARTMELL: No, I'm not.
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         Q. BY MR. SNELL: Okay. And also it
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                                                                    MR. SNELL: Knock it off, Tom.
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      says, "and have a good safety profile."
                                                         5
                                                                    MR. CARTMELL: He answered your
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             You would agree with that; correct?
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                                                              question no.
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             MR. CARTMELL: Object to the form.
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                                                                    MR. SNELL: No.
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         A. That statement needs to be taken in
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                                                                    MR. CARTMELL: And I'm not going to
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      the entirety of the paragraph, where they say
                                                         9
                                                              let you do this again. We're not going to sit in
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      longer term studies are needed. But that is what
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                                                              here for seven hours where you ask the same
                                                              question five times because you don't like his
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      they state.
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         Q. BY MR. SNELL: And you agree with
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                                                              answer.
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      that; correct?
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                                                                    MR. SNELL: It's not about whether I
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             MR. CARTMELL: Object to the form.
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                                                              like his answer.
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      You just asked him the question. And he answered
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                                                                    MR. CARTMELL: He told you he
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                                                              disagrees with the conclusion. So move on.
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         A. I agree that's what they state. And
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                                                                    MR. SNELL: No, he didn't. You're
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      then it has to be looked at in the entirety of the
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                                                              misstating, Tom.
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      paragraph where they say longer studies are
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                                                                    MR. CARTMELL: Tell him again.
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      needed.
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                                                                    MR. SNELL: You're giving speaking
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         Q. BY MR. SNELL: And my question to you
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                                                              objections on the record.
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      is: You agree with that conclusion; correct?
                                                       22
                                                                    MR. CARTMELL: We're going to do this
             MR. CARTMELL: Object to the form.
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                                                              once.
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      Asked and answered.
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                                                                    MR. SNELL: This is my question.
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         A. I disagree with the conclusion because
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                                                                    MR. CARTMELL: We're not going to do
                                          Page 91
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                                                              it again.
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      longer studies have not been done.
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          Q. BY MR. SNELL: Well, you agree that
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                                                                    MR. SNELL: Just knock it off. This
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      mid-urethral sling operations have a good safety
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                                                              is my question. You're wasting my time. This is
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      profile with the caveat that you would like to see
                                                         4
                                                              your time you're burning here, not mine.
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      more long-term studies done; correct?
                                                                 Q. BY MR. SNELL: You would agree
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             MR. CARTMELL: Object to the form.
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                                                              mid-urethral sling have a good safety profile with
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 7
      That misstates his testimony. And I'm not going
                                                              the caveat that you, Dr. Elliott, would like to
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      to let you do this thing where you do -- you ask
                                                              see more long-term data on those procedures;
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      four different times the same question, like we
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                                                              correct?
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                                                                    MR. CARTMELL: Object to the form. It
      did the last time.
                                                              misstates his testimony. He's already answered
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             MR. SNELL: That's fine.
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             MR. CARTMELL: He's asked -- don't
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                                                              it.
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      answer that. You've answered it three times.
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                                                                 A. I disagree with that.
             MR. SNELL: No, he hasn't. No, he
                                                                 Q. BY MR. SNELL: Very well. Would you
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                                                              like to see more long-term data on the autologous
      hasn't.
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             MR. CARTMELL: Yes, he has.
                                                       16
                                                              pubovaginal sling?
                                                                 A. Long-term studies are always going to
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             MR. SNELL: No.
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                                                              be important. However, when we're talking about
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             MR. CARTMELL: He answered your
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                                                              safety and complications, it's comparing apples to
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      question. You asked if he agreed with the
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                                                              oranges because there is no medical device placed
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      conclusion. He said no.
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             MR. SNELL: You're wrong, Tom. He
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                                                              in those patients that's permanent.
                                                       22
                                                                 Q. Can you answer it yes or no?
22
      said not because of the caveat that it needs more
23
      long-term study. So there's my follow-up
                                                       23
                                                                     Would you like to see more long-term
      question, Tom. You're playing games with me.
                                                       24
                                                              data on the autologous pubovaginal sling?
24
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             MR. CARTMELL: No, I'm not.
                                                       25
                                                                    MR. CARTMELL: Objection.
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24 (Pages 90 to 93)

Page 94

Q. BY MR. SNELL: A procedure that you perform.

MR. CARTMELL: Objection. Asked and answered.

- A. I don't necessarily know if it is actually needed. On efficacy, I would agree with you. On safety, I disagree.
- Q. BY MR. SNELL: This paper you gave me by Langer on the Burch says that more longer term studies are needed on the Burch because of safety; doesn't it?

Q. Here. How about we look at the very

- A. I'd have to look at the study.
- last sentence. "The most significant complications are de novo detrusor instability (16.6 percent) and anatomical defects (18.9 percent), half of which appeared only 5 years postoperatively, stressing the need for long-term follow-up."
- A. I never denied --

- Q. Did I read that correctly?
- A. I have no reason to doubt that you -that's the editorial comment. You said the author's conclusion. So you read the editorial
- comment. I have it highlighted there.

Page 95

- Q. That's not what I read. I read this.
- A. Okay. Now, number one, you didn't show this what you were reading so I don't know what you're reading. I go down here, and they say longer term studies.
- Q. I'm not reading your highlights. I'm reading what I stated.
- A. Okay. That's what the author states. I'm not disagreeing with that at all.
- Q. So there is long-term follow-up needed on the Burch to assess safety considerations; correct?
- MR. CARTMELL: Objection. Asked and answered.
- A. They never say safety. They're talking about de novo instability and anatomical defects, which anatomical defects can occur in any woman with any type of -- as long as they have a vagina there could be prolapse happening. They're not talking safety. They're talking contraction, roping, those type of things.
- Q. BY MR. SNELL: They're talking safety; aren't they?
- A. They're talking de novo instability.Okay. That's new afterwards. Anatomical defects,

Page 96

- which can occur, but it's not an issue of safety.

 Q. Those authors categorized those two issues as complications; didn't they?
- A. They record them as complications; that's correct.
- Q. Back to the Cochrane Review that you cite in your report. It says that "The mid-urethral sling-urethral slings are highly effective in the short and medium term, and accruing evidence demonstrates their effectiveness in the long-term; correct?
 - A. That's what they state, yes.
- Q. And you would agree with this paper you cited in your report that mid-urethral slings are highly effective in the short and medium term?

MR. CARTMELL: Object to the form.

- A. I will never say that the -- I will not -- I agree with you as far as effectiveness. I'm never going to be challenging the effectiveness of the TVT as far as causing -- or in treating urinary incontinence. The question is always going to be at what cost.
- Q. BY MR. SNELL: We can agree that the TVT retropubic device is effective in the treatment of stress urinary incontinence in women?

Page 97

- MR. CARTMELL: Object to the form.
- A. Correct. With the caveat, at what cost.
- Q. BY MR. SNELL: All right. There is no stress urinary incontinence surgery that is performed in women that is more effective than the TVT retropubic; correct?

MR. CARTMELL: Object to the form.

- A. More effective? I would have to look at all the literature out there on pubovaginal slings, including the Burch. I would say it's safe to say that the TVT, as far as efficacy, on the average, is going to be -- specifically dealing with stress urinary incontinence recurrence, is going to be as efficacious as pubovaginal and Burch, in properly trained hands.
- Q. BY MR. SNELL: And you've seen a conclusion very similar to that which you stated about TVT being efficacious in the treatment of stress urinary incontinence, as compared to pubovaginal slings and the Burch in the Ogah/Cochrane Review; correct?
- A. That's correct. Yeah.
- Q. That's a paper --
 - A. They state that that -- yeah.

25 (Pages 94 to 97)

Page 98 Page 100 Q. That's a paper you reviewed; correct? 1 1 A. You'd have to show me that study. 2 A. Correct. Yes. 2 Well, it's not just one study. I'm 3 Q. You didn't cite the Ogah review in 3 just saying from your general awareness, are you 4 your report. Why not? 4 aware that for the original TVT retropubic device 5 5 A. Because I stayed the Ford one, which it has the largest volume of longer term data 6 is an update. So I'm not going to go back to 6 compared to other manufacturers' stress 7 7 Ogah. I'm going to go to the most updated incontinence mid-urethral sling devices? 8 8 literature. A. I think that's probably a fair 9 Q. Ogah compared TVT to the Burch and 9 statement, yes. 10 10 pubovaginal slings, though? Q. Have you assessed the literature to 11 A. Okay. 11 ascertain how many studies with 10 years follow-up Q. You're aware of that; right? or more exist on the TVT retropubic device? 12 12 13 A. Yeah. 13 A. Have I -- I'm sorry. I'm not really 14 14 Q. Any reason you didn't cite that following your question. comparative data by Cochrane? Have I assessed how many 10-year 15 15 16 A. Because that's going to be a Cochrane 16 studies there are? 17 analysis of compiling a meta-analysis, so to 17 Q. 10-year or more. Yes, sir. 18 speak. 18 A. I looked at the literature. I 19 Q. Okay. reviewed it. There are studies out there. I 19 20 A. So using my methodology there's going 20 can't give you a number, though. 21 to be some papers that are not going to included 21 Q. Are you aware if studies that look at 22 and others are going to be included. 22 10 years duration or more specific to the TVT Q. You would agree that there's accruing 23 23 retropubic device assess safety issues, such as 24 evidence that -- demonstrating the efficacy of TVT 24 mesh exposure or dyspareunia? 25 retropubic in the long-term? 25 A. I am unaware of any study that the Page 99 Page 101 1 MR. CARTMELL: Object to the form. primary end point is on safety with the TVT. 2 Are you talking just efficacy? 2 There can be a paper here and there with large 3 A. Well, again, I'd have to see what 3 amounts of follow-up -- with large amounts of lost you're talking about as far as which papers you're 4 4 follow-up that can refer to an erosion or 5 5 referring to. But since the product has been in a exposure. 6 long time, naturally there's going to be longer --6 Q. So you are aware that in the longer 7 7 or hopefully there's going to be longer term term studies with TVT they do assess safety? 8 8 A. You'd have to show me those studies. studies. 9 Q. BY MR. SNELL: You're aware there are 9 I'm sorry. Because I have to look at those 10 several studies that have a duration of follow-up 10 studies very carefully. As I mentioned, I am not of seven years or more with the TVT retropubic 11 aware of any with the primary end point being on 11 12 device? 12 safety. 13 13 A. Correct. Q. I didn't ask you about primary end 14 Q. I'm not talking about other 14 point. I asked you about assessing safety, okay? 15 manufacturers' devices. 15 Are you aware of TVT retropubic device A. Yes. There are studies out there, 16 16 studies looking at it long-term that assess 17 yes. 17 safety? 18 Q. Due to your -- let me back up. 18 MR. CARTMELL: Object to the form. I don't know if I asked you this It's vague and ambiguous as to what you mean by 19 19 question. If I did, I apologize. 20 20 assess. 21 21 You and I can agree that with regard A. There can be random -to long-term studies following up on a 22 Q. BY MR. SNELL: They look on and report 22 23 mid-urethral sling that the original TVT 23 about whether there were mesh erosions, mesh

26 (Pages 98 to 101)

exposures, dyspareunia, detrusor instability.

Are you aware of that?

24

25

retropubic has the most long-term data of any of

24

25

those devices?

Page 102 Page 104 1 A. They can mention -- there are studies 1 we're comparing apples to oranges. 2 out there that mention those various different 2 MR. SNELL: Move to strike everything 3 3 facts. They also, you know, very rarely talk before "But to answer your question." 4 about contraction because it's not -- those 4 Q. BY MR. SNELL: On the Cochrane Review 5 5 patients aren't examine. They're telephone that you cite in your report, the last page they 6 follow-ups. So, again, I'd have to look at those 6 say, referencing mid-urethral sling operations, 7 7 specific studies and we can analyze that. I'm all are suitable for women who have -- who are having 8 8 for that. But otherwise you're talking somewhat their first operation to prevent incontinence and 9 9 vague for me. also women who have had unsuccessful surgery 10 10 Q. What studies, long-term studies on TVT previously. 11 are you referencing where patients were not 11 A. I'm sorry. I don't know where you 12 12 assessed? are. 13 A. Well, no. I'm saying that we'd have 13 Q. Back --to pull out a study and look at it, how many of 14 14 A. You're in the Author's conclusions? those patients came back and had a physical exam. 15 Q. Background information. 15 16 How many of them did quality of life surveys. How 16 A. Oh, Background. 17 17 many of them did global bother index. And those Q. It's the next page, if you flip it 18 studies are very few. Hence, the reason why all 18 over. Are you with me now? 19 19 A. Yeah. Which paragraph are you on on these different societies, the AUA, for example, 20 keep talking about moderate to low quality of 20 Background? 21 studies. 21 Q. Second paragraph. 22 22 MR. SNELL: Move to strike as A. Second paragraph starting with, "Over nonresponsive. 23 the years"? 23 24 Q. BY MR. SNELL: Admit your primary end 24 Q. Second sentence. 25 25 It starts, "Over the years"? point on safety. Page 103 Page 105 1 How many Burch or pubovaginal sling O. Yes. 2 studies are you aware of that have long-term 2 And second sentence, "These operations 3 follow-up that have a primary end point of safety? 3 are suitable for women...." 4 A. And you -- with -- oh, Burch or 4 Okay. Yes, I see that statement. 5 5 pubovaginal. Yes. 6 I'm aware of pubovaginal because 6 Q. Would you agree that the TVT 7 7 that's the procedure I'm doing. So I'm going to retropubic device is suitable for women who are be more focused on that. That have 8 to 10-year 8 8 having their first operation to prevent 9 follow-up where global bother index and distress 9 incontinence? 10 inventories have been obtained. 10 A. I disagree strongly with that unless 11 11 Q. Right. But how many of those had a the caveat is that the woman and the physician 12 primary end point of safety? 12 have been fully warned of all the complications 13 A. It was part of the study. It was not 13 14 the primary end point. 14 Q. A little bit further down, we were Q. Just like the TVT studies; right? It 15 15 talking about long-term studies. And they talk 16 was part of the study? 16 about the main findings of this review. MR. CARTMELL: Object to the form. 17 17 Under Author's conclusions? A. Incorrect. As I've mentioned before, 18 18 Right here. We were here. O. 19 pubovaginal slings and Burch are not a permanent 19 A. Yeah. medical device that's implanted in a woman. 20 20 Q. So Main findings. 21 Therefore, the bar is changed for the pubovaginal 21 A. Yes, sir. 22 22 and Burch, okay. Q. So under the Main findings of the 23 But to answer your question, I am 23 review, they stated that the trial showed over 24 aware -- I am not aware of any primary end point 24 80 percent of women with stress urinary

27 (Pages 102 to 105)

incontinence are cured or have significant

25

25

on safety with those other ones. But, again,

	Page 106		Page 108
1	improvement in their symptoms with either	1	also talk about main findings pertaining to
2	operation for up to five years after surgery.	2	adverse effects; correct?
3	A. Yes, I see that statement.	3	A. Correct.
4	Q. Is that an accurate statement?	4	Q. And it says, "Tapes passing behind the
5	A. That is the findings of their studies.	5	pubic bone (retropubic) seem to carry a greater
6	Q. Do you	6	risk of injuring the bladder"; correct?
7	A. And I have never and as you look at	7	A. Oh, that is correct.
8	my expert report, ever challenged TVT's efficacy.	8	Q. All right. And that's been reported
9	That's not an issue with me. It's at what cost.	9	in the literature; correct?
10	Q. At the end of that paragraph it says,	10	A. Yes. And that's pertaining to either
11	"The evidence that we have been able to assess	11	bottom-up, top-down.
12	indicates that the positive effects persist."	12	Q. But even for the TVT retropubic, going
13	Do you see that?	13	bottom-up, it's been known that there's a risk of
14	A. Yes, I see it.	14	hitting the bladder with the trochars. That's why
15	Q. You did not challenge that statement	15	a cystoscopy is done; correct?
16	either; correct?	16	A. That is correct. And the big question
17	MR. CARTMELL: Object to the form.	17	then becomes the ramifications of that
18	A. The evidence that they're saying is	18	perforation, long-term erosions and those
19	they're talking about the durability of the	19	things erosions and extrusions, yes.
20	treatment for stress urinary incontinence. As I	20	Q. When you did your top-down passage
21	mentioned, I'm not challenging that. The question	21	with the mid-urethral sling, I take it you also
22	is at what cost.	22	did cystoscopies as well?
23		23	
24	Q. BY MR. SNELL: Yeah. We can agree TVT retropubic that that device has durability for	24	A. Always, yes.
25	=	25	Q. I know the AUA recommends cystoscopies
	treating stress urinary incontinence in women?	25	for all incontinence procedures, surgeries, as I
	Page 107		Page 109
1	A. Yes, I believe that the data, in my	1	understand it.
2	clinical experience, would agree with that	2	Is that consistent with your
2 3	clinical experience, would agree with that statement.	2	Is that consistent with your understanding, based upon their updated stress
2 3 4	clinical experience, would agree with that statement. Q. And that is a utility of the TVT	2 3 4	Is that consistent with your understanding, based upon their updated stress incontinence guidelines published by Dmochowski,
2 3 4 5	clinical experience, would agree with that statement. Q. And that is a utility of the TVT retropubic device; correct?	2 3 4 5	Is that consistent with your understanding, based upon their updated stress incontinence guidelines published by Dmochowski, et al.?
2 3 4 5 6	clinical experience, would agree with that statement. Q. And that is a utility of the TVT retropubic device; correct? MR. CARTMELL: Object to the form.	2 3 4 5 6	Is that consistent with your understanding, based upon their updated stress incontinence guidelines published by Dmochowski, et al.? A. Dmochowski. Yeah. I don't even know
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Page 110 Page 112 1 of patients with it, but I've never caused it. 1 Q. You say these studies are done by 2 Q. Okay. A little further down in that 2 expert high-volume surgeons. 3 3 First of all, how do you define an paragraph in the Cochrane Review, under Adverse 4 effects, it says, "There is moderate quality 4 expert high-volume surgeon? 5 5 evidence that overall reported rates of A. Well, Kuuva, et al., defined it as 6 tape-related complications are low, such as 6 anybody doing -- they said the learning curve on 7 7 erosion of the tape into the vagina at about the TVT is 15 or greater. 8 8 Okay. So any -- most surgeons in the 2 percent for both routes of tape insertion." 9 Did I read that correctly? 9 United States, based upon people sitting for the 10 10 A. Yes, you did. oral boards for urology, are doing 1 to 2 slings a 11 Q. And do you agree with that? 11 year. Those people are not experts, but those are 12 the people putting in the majority of slings. 12 A. Disagree. 13 Q. I didn't see in your expert report 13 Okay. Now, to answer your question, where you identify what the rate of mesh exposure 14 how do we define an expert, it's going to be tough 14 was with the TVT device. 15 to say, but they're going to be doing more than 15 A. That's because the true rate is not 16 that number. 16 17 known. 17 Q. Do you have a definition or a number 18 Q. I didn't see where you reported any 18 in your mind, when you keep mentioning expert rates of mesh exposure based on any studies for high-volume surgeons, what that is to you? 19 19 20 the TVT retropubic device. 20 A. It also -- because there's not a 21 MR. CARTMELL: Is that a question or 21 specific answer to that because it depends upon 22 22 their level of training coming into the procedure statement? 23 or did they do a fellowship. Did they learn from 2.3 Q. BY MR. SNELL: Am I correct, Doctor? 24 MR. CARTMELL: We'll stipulate that 24 an expert. Did they have Ulmsten or Nilsson come 25 25 in and teach them how to do it. Those numbers are that's not in there. Page 111 Page 113 1 A. I don't believe and I don't recall 1 going to be different than an average person who 2 stating a specific number, no. 2 goes and has a three-hour Ethicon meeting and then 3 Q. BY MR. SNELL: And this Cochrane 3 goes back out in the middle of nowhere USA and 4 4 Review you cite to in your report does say that puts them in. For me, I would have to say if "The reported occurrence of problems with sexual 5 5 they're not doing at least 25 or greater slings --6 intercourse including pain was low"; correct? 6 specific sling a year, they are going to possibly 7 7 A. That's what they state, yes. be putting that patient at risk for complications. 8 Q. Well, this study -- strike that. 8 Q. And you didn't acknowledge that point 9 in your report; did you? 9 This Cochrane Review included 81 10 A. I talk about dyspareunia in there. 10 trials. So of all the investigators in all of Q. Did you acknowledge that the Cochrane 11 11 those 81 trials, how many of them performed at 12 Review that you cite to states that problems with 12 least 25 or more TVT slings in a given year? MR. CARTMELL: Do you want him to look 13 sexual intercourse, including pain, were low in 13 14 14 at the underlying data and tell you that? your report? 15 A. I don't recall using those specific 15 MR. SNELL: I want him to answer my 16 words, no. 16 question, Tom. MR. CARTMELL: Well, but you know --17 Q. Why not? 17 A. Because, again, this is a A. Let's get the Cochrane analysis out 18 18 19 and I'll look at that. 19 meta-analysis of poor quality or moderate quality studies that do not focus on dyspareunia. And MR. CARTMELL: Yeah. 20 20 21 21 specifically they're short-term studies. It does Q. BY MR. SNELL: Well, did you bring it 22 not tell -- also, these are in the hands of 22 here? 23 experts, high-volume surgeons. Does not tell us 23 A. No. I don't have that. 24 the rate of the true average surgeon out there, BY MR. SNELL: So you can't answer my 24 Q

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question?

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which is known to be much higher.

Page 114 Page 116 1 A. Well, no, but you brought up the 1 (Exhibit 8 marked.) 2 issue. And so you have a question that I can't 2 Q BY MR. SNELL: So, Doctor, I've handed 3 3 answer based upon -- we have two pieces of paper, you the American Urological Association's position 4 81 studies. That should be roughly, what, 150 4 statement on the use of vaginal mesh for the 5 5 pages of data. I'd have to go through and look at surgical treatment of stress urinary incontinence 6 6 that. from October 2013. 7 7 You're aware of this; correct? Q. So as you sit here today, you can't 8 8 answer that? A. Yes. 9 A. I just answered -- I just already 9 O. And this is the same association 10 answered that because you have not provided me 10 you're a member of; correct? 11 with the information I need. 11 A. Yes. 12 12 Q. I asked that you bring your file to Q. And the AUA says suburethral synthetic 13 this deposition. You didn't bring it. 13 polypropylene mesh sling placement is the most 14 14 common surgery currently performed for stress A. Because with this study --15 MR. CARTMELL: Wait. For the record. 15 urinary incontinence"; correct? 16 16 Let me just say this. You have been provided his A. Yes. 17 reliance list that has every single document on it 17 Q. Do you know whether that statement is 18 he reviewed and relied on. It has this 18 accurate or not? 19 document that you only -- the full document. You 19 A. I don't know if it's accurate or not. 20 only provided a summary document. So if you 20 I have no reason to doubt its validity, though. 21 wanted to ask him questions about the full 21 Q. I think you're familiar with the paper 22 22 document, you knew he reviewed it and relied on by Chughtai, et al., that reports on the different 23 it. You could have brought it. 23 types of stress urinary incontinence surgeries 24 MR. SNELL: Here's why, Tom, I'd like 24 performed by urologists certifying or recertifying 25 him to bring his file. The document he did 25 for their boards that found the mid-urethral sling Page 115 Page 117 1 produce has notes on every single page of the to be the dominantly used procedure? 2 studies. So whatever I could pull off the 2 A. I recall the name of that study. I 3 internet or elsewhere, will not be the version 3 don't recall the data. But, again, I have no 4 that he has that has his notes on it. 4 reason to doubt that it's the most common. But I 5 5 MR. CARTMELL: Okay. Now, he didn't have not done independent research to verify that. 6 have to provide you that today. He brought it 6 Q. Okay. The AUA statement says, 7 7 with him today. I mean all you -- the rules say "Extensive data exist to support the use of 8 8 that we got to give you is the reliance list and synthetic polypropylene mesh suburethral slings 9 the materials. And I've told you, I'll give you 9 for the treatment of female SUI." 10 the materials on a -- what do you call it? 10 That's what they state, yes. 11 MR. SNELL: Thumb drive. 11 And that's an accurate statement; 12 MR. CARTMELL: Thumb drive. But you 12 correct? 13 have it all. You have it all. 13 MR. CARTMELL: Object to the form. 14 MR. SNELL: I would like those with 14 A. No. That's what they state. 15 his notes on them. Not your version of them. I 15 Q BY MR. SNELL: I know that's what they 16 want Dr. Elliott's file. 16 state, but that is an accurate statement; correct? 17 MR. CARTMELL: He gave you a study 17 MR. CARTMELL: Well, is that a 18 that has his notes on it. I don't know what he 18 statement by you, or are you asking him if he 19 19 has that has notes on it or not, okay? But the agrees that's accurate? 20 bottom line is you have the reliance materials and 20 Q. BY MR. SNELL: I'm asking you if you 21 you know every single study and paper and internal 21 agree that's accurate. What I just read to you. 22 document he's relied on. 22 MR. CARTMELL: Object to the form. He 23 MR. SNELL: I don't think I know that. 23 just answered that question. 24 24 MR. CARTMELL: Yes, you do. MR. SNELL: He said that's what they

30 (Pages 114 to 117)

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say. I know that.

MR. SNELL: All right. So move on.

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Page 118 Page 120 1 When you do the autologous pubovaginal A. The document, as it says now, 1 2 Extensive data exist to support the use of 2 slings, you do general anesthesia? 3 synthetic polypropylene mesh suburethral slings 3 A. That is correct. Or spinal. 4 for the treatment of SUI." 4 Q. Or spinal. And that's because that's a painful procedure when you have to harvest that 5 As we've stated before, it is 5 6 effective, along with pubovaginal slings and 6 tissue from the lady; correct? 7 Burch, to treat SUI. So I agree with that. 7 A. No. You don't want them moving during 8 Q BY MR. SNELL: Okay. 8 the procedure. 9 A. Minimal morbidity compared to the 9 Q. It wouldn't be painful if that was 10 alternatives, I disagree with. So I guess, I 10 under local anesthesia? 11 can't --11 A. You could do it under local. It's Q. Okay. 12 12 been done under local. 13 A. It's a complicated or -- not a 13 Q. Is the autologous pubovaginal sling compound sentence, whatever the -- multiple commonly done under local anesthesia? 14 14 aspects of t the sentence. 15 A. No, I would say it is not, no. 15 16 Q. What Cochrane reviews or meta-analyses 16 Q. Why not? 17 or randomized control trials report that the TVT 17 A. Just as I mentioned, patient's going 18 retropubic has -- strike that. 18 to be moving. And you'd have to inject local underneath the rectus fascia. It could be done. 19 When you say you disagree that the 19 20 mid-urethral sling have minimal morbidity compared 20 But for patient comfort, most patients don't want 21 with alternative surgeries, why do you say that? 21 to be awake for it. You just don't do it that 22 A. Because there have been very few 22 way. 23 randomized control trials, none which are 2.3 Q. So when the AUA says, "Advantages 24 long-term, comparing head-to-head autologous 24 include, and they say anesthetic need, what do 25 pubovaginal slings versus TVT. The only one I can 25 they mean by that? Page 119 Page 121 MR. CARTMELL: Object to the form. think of off the top of my head is Amaro, et al., 1 2 from International Journal of Urology, I believe. 2 A. I suspect they're probably meaning 3 Q. Do you agree that with regard to the 3 postop analgesia. 4 Q BY MR. SNELL: Is that a benefit of 4 TVT retropubic as compared to the pubovaginal 5 sling and the Burch that it has an advantage, 5 the TVT retropubic compared to Burch and 6 including shorter operative time? 6 pubovaginal sling? 7 A. It is shorter. Whether that's an 7 A. Well, the statement they say 8 "Advantages include shorter operative time and 8 advantage or not -- surgeons get too caught up in 9 doing something in, say, 15 minutes. So it is 9 anesthetic need." 10 shorter. I'll give that to you. 10 O. Um-hum. 11 Q. Okay. 11 A. Somewhat ambiguous. I don't know if 12 A. Is it an advantage? That's debatable. 12 they mean intraop or postop. But if you're Q. Okay. Is it an advantage of the TVT looking just at the short-term, just at the time 13 13 14 retropubic device that it can be done, if chosen, of the perioperative period, that would 14 theoretically be an advantage. But, again, it's 15 locally, as compared to the Burch and the 15 at what cost long-term. 16 pubovaginal slings? 16 Q. When you say perioperative period, 17 A. Well, that's a difficult question. Is 17 that an advantage? I suppose in some highly what are you referring to? 18 18 19 select patients. In all my years of doing this at A. Meaning right before surgery, meaning 19 20 a high-volume tertiary center, I've never once had 10 minutes before surgery, the surgery, and then 20 immediately postoperative. Like the first few 21 to do a procedure under a local, as far as a 21 22 sling. I mean, so that's a theoretical potential 22 weeks.

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Do you agree that TVT retropubic has

Q. They also say, "Another advantage

would reduce surgical pain."

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advantage.

Burch.

Q. I'm not even going to ask you about

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reduced surgical pain, and that that is an advantage?

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A. Well, but, again, we have to go back to the lack of studies. Again, I'm always aware of Amaro, et al., TVT randomized versus pubovaginal. In that study, hospital duration was the same. And so that is debatable. But, again, let's look at the short-term. I got to look at long-term. As a surgeon, I got to look at long-term, 10 years on down the road. So I can give that to you with the caveats I mentioned.

Q. So in the short-term you'd agree TVT retropubic has the potential for reduced surgical pain versus the Burch or the autologous pubovaginal sling?

MR. CARTMELL: Object to the form.

A. I agree, in the immediate postoperative period, let's say within the first -- define that as the first six weeks of surgery --

Q BY MR. SNELL: Okay.

A. -- especially the first week, I think it's acceptable to say that the TVT would have less perioperative pain than the Burch or the pubovaginal sling.

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RCT. So for the practice of stress urinary incontinence surgery in the United States, over the time period TVT retropubic device has been available, would you agree that there is reduced hospitalization with it compared to the autologous pubovaginal sling and the Burch?

A. I think there's going to be data out there that supports it's a faster, quicker, and less hospital stay on the average. But, again, we have to look at the randomized control studies. But, again, that's not an issue I'm debating. It's the long-term risks that I'm talking about.

Q. It says another advantage is reduced voiding dysfunction.

Do you believe that's a potential advantage for the TVT retropubic versus the autologous pubovaginal slings?

MR. CARTMELL: Object to the form. It's vague and ambiguous with respect to what you mean by voiding dysfunction.

A. Well, no, I disagree with that. I'd have to say show me the -- that one very specifically, you're going to need level 1 data to support that. You cannot take cohort studies and compare cohort to cohort. And so that one is

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1 Q. When you do your pubovaginal slings, 2 do you give your patients pain medicines?

A. Yes.

Q. Why?

A. To reduce the perioperative pain.

Q. How long do you give them pain medications?

A. We give them 10 to 15 tablets of a narcotic, and they take it if they need it. They stop it if they don't. So I don't know how long they take it.

Q. Do you agree that and advantage of the TVT retropubic device is reduced hospitalization?

A. Disagree.

Q. Why is that?

16 A. Based upon Amaro, et al., that hospital duration was the same for the TVT and the 17

autologous pubovaginal sling.

Q. Do you know of other TVT versus autologous pubovaginal sling randomized control trials?

22 A. As I sit here right now, I'm not 23 aware. I'd have to go back and look at the 24 literature.

Q. In general, not isolated to a single

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highly debatable.

2 Q BY MR. SNELL: When you see "voiding 3 dysfunction" -- and this is written by the 4 organization that you belong to; right? 5

A. Oh, yeah, and I know the people who wrote it. One's on staff with me.

Q. When you see the term "voiding dysfunction" -- Mr. Cartmell objected as vague.

What did the AUA mean by "voiding dysfunction" in this position statement.

MR. CARTMELL: Object to the form.

A. Yeah, when these guys and women get together, this is a big argument, because, again, I know the people on this board and I'm at the meetings. I don't go -- I'm not a member of this and the guidelines.

But voiding dysfunction can be anything. Stress incontinence, overactive bladder, urgency frequency, nocturnal enuresis, bladder pain with urination. Voiding dysfunction is very vague. And hence, the reason why Rovner, et al., wrote up a follow-up article in this in the AUA newsletter.

Q BY MR. SNELL: Actually, Rovner's follow-up was before this was reissued. You know

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Page 126 Page 128 1 that; right? 1 you have used it? 2 A. This was were the --2 A. It's going to depend upon the 3 3 Q. October 2013. procedure we are discussing, but when specifically 4 4 in TVT, from my perspective, based upon the A. 2013 is the one I'm referring to. 5 5 Q. This paper was issued after Rovner's literature and what's out there, as far as 6 6 degradation, et cetera, anything short of lifelong commentary? 7 7 A. Well, no, this is a revision of the is going to be insufficient. 8 8 original; wasn't it? I'd have to look at when the MR. SNELL: I don't think -- move to 9 first one came out, and it's a revision of it. 9 strike as nonresponsive. 10 10 Q BY MR. SNELL: I'm trying to get a Update. 11 Q. On the very back page, October 2013, 11 definition from you. So when you use the term "short-term," what do you mean by that? 12 revised. Correct? 12 13 A. Yeah. 13 A. Short-term specifically relative to 14 polypropylene meshes --14 Q. They state that "mesh-related 15 complications can occur following polypropylene 15 Q. Okay. A. -- because it is a permanent sling placement, but the rate of these 16 16 17 complications is acceptably low." 17 implantable device, shown to have degradation in 18 Do you see that? 18 Klinge, et al., up to 15 years, Ethicon's 19 19 Yes, I do. statement showing that degradation continues, 2.0 Q. "It is the AUA's opinion that any 20 contraction, et cetera. Anything less than 21 restriction on the use of synthetic polypropylene 21 lifelong, to me, is short-term and insufficient. 22 mesh suburethral slings would be a disservice to 22 Q. And you like to apply a different bar 2.3 women who choose surgical correction of SUI." 23 to the Burch colposuspension; correct? 24 Do you see that? 24 A. Burch and also the autologous 25 A. Yes, I do. 25 because -- specifically because those are no Page 127 Page 129 1 Q. "Multiple case series and randomized permanent implantable device. With that said, for 2 control trials attest to the efficacy of synthetic 2 example, when the ProteGen sling was used in the 3 polypropylene mesh slings at 5 to 10 years." 3 past, the Gortex sling was used in the past, then Do you see that? 4 4 I would say for those, you need to have lifelong 5 5 A. Yes, I do. follow-up. 6 Q. "The efficacy is equivalent or 6 Okay. But, again, when we're talking 7 7 superior to other surgical techniques." Correct? about autologous tissue, the patient's own, or 8 8 A. That's what it states, yes. Burch, where there's no tissue used, the 9 Q. And you've seen literature and data 9 products -- there's no product in there to have 10 that supports that statement? 10 lifelong problems with. 11 11 Q. So how do you define short-term as to A. As it pertains to efficacy, I agree. 12 I mean, equivalent, I think is fine. And superior 12 the autologous and the Burch? 13 13 is debatable, and you have to look at those A. Well, a minimum study criteria 14 specific studies, but I'm not going to argue that. 14 established about four, five years ago, said any 15 Q. "There is no significant increase in 15 study less than 12 months for sling procedures was 16 adverse events observed over this period of 16 insufficient. 17 follow-up"; correct? 17 So, again, it depends on what you're 18 A. Yeah. And that's the actual key right 18 looking at in a study. But if we're looking at 19 there, "over this period of follow-up," which is 19 efficacy, efficacy is a different story. Efficacy 20 20 can be lifelong. But if we're looking at 21 21 Q. How do you define -- did I ask you how perioperative complications, then really two years 22 you define "short-term"? I know you've mentioned 22 out. Patients heal. But there is no written in 23 that term. 23 stone what short-term, long-term is. 24 24 A. Yeah. Q. I was just following up, though, 25 Q. Can you define "short-term" for me as 25 because you used those terms, and I want to know

33 (Pages 126 to 129)

Page 130 Page 132 1 what it means to you. 1 been discussed. Ethicon knows that. So that 2 So what is short-term --2 actually is a very good point. Perhaps Prolene is 3 3 not safe product, as we've been told. A. Short-term --4 Q. -- in the context of an autologous 4 MR. SNELL: Move to strike as 5 5 pubovaginal sling? non-responsive. 6 MR. CARTMELL: Are you talking about 6 Q. BY MR. SNELL: My question was: It's 7 7 in the context of a study? known that permanent sutures can degrade. In 8 8 MR. SNELL: Not a particular study. fact, it's known that permanent sutures can have 9 9 He says short-term. suture erosion if employed with the Burch 10 Q. BY MR. SNELL: I want to know what you 10 colposuspension or the autologous pubovaginal 11 mean by that. 11 sling procedure; right? 12 12 A. I understand. A. Incorrect. Q. You haven't seen publications by 13 Q. You've told me about the TVT and 13 stuff, and I hear you. But now I want to know 14 people like Ed McGuire and others that report 14 what standard do you apply to the Burch when you suture erosions following an autologous 15 15 16 say short-term? 16 pubovaginal sling at an average duration follow-up 17 A. Less than 12 months. 17 of greater than 24 months? 18 18 A. If you're doing a pubovaginal sling in O. Okav. 19 19 A. Less than 12 months. Arguably, 24 the classic way where it's described, where the 20 months. 20 Prolene sutures are high up in the abdomen, away 21 Q. And what do you mean -- strike that. 21 from the bladder, there should be zero erosions. 22 What standard do you use for the 22 If somebody's doing a variant of it, that's a definition of short-term with regard to the 23 23 different story. I can't speak to that. Burch is 24 autologous pubovaginal sling? 24 the same thing. You have a Prolene suture, which 25 A. Same thing. 12 months definitively. 25 we know degrades based upon studies, okay, which Page 131 Page 133 Arguably 24 months. are outlined in my expert report. Ethicon knows 1 Q. Okay. Is that for safety, too? 2 2 it. Prolene, as a much suture, degrades. If you 3 A. Yes. But, again, we don't have any 3 knot it up and put it by the bladder, you can have permanent implantable device with those other 4 4 degradation, foreign body reaction, and then subsequently erosion. So, yes, the question is 5 procedures. So perioperative morbidity is a more 5 6 important issue. 6 why. 7 7 Q. Well, you know there can be permanent MR. SNELL: Move to strike as 8 8 sutures placed at the time of the autologous nonresponsive. 9 pubovaginal sling or a Burch; correct? 9 Q. BY MR. SNELL: My question was: Do 10 A. Yes. And those are --10 you know there are studies that report suture Q. And you know there can be suture or --11 erosions by people who do the autologous 11 12 MR. CARTMELL: Let him finish. Hold 12 pubovaginal sling, like Ed McGuire, that report suture erosions at a follow-up of greater than 13 on? Yes, and those are? 13 14 A. Yes, and those are usually Prolene 14 24 months? 15 sutures, which we've been told by Ethicon are 15 I would have to see that exact study 16 safe. However, in my practice, I've had two 16 and we'd have to review it, see how they did the study. But, again, it raises the issue of why 17 patients develop suture granulomas; so I don't use 17 18 them. I use Vicryl sutures. 18 that's occurring. 19 19 Q BY MR. SNELL: And you know that Q. My question is: Do you know whether 20 suture erosion can occur with those -- any type of 20 or not the data exists? 21 21 permanent suture; correct? A. I answered that and said I'd have to 22 A. Then that raises the very real 22 see the studies you're talking about and how they 23 possibility of those sutures causing degradation, 23 did the procedure. 24 24 inflammatory reaction, foreign body response, MR. CARTMELL: Lunch is ready when you 25 which we know happens in the dog model. That's

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Page 134 Page 136 mid-urethral slings from over 2,000 publications 1 MR. SNELL: Is it. Yeah, let's go 1 2 ahead and do lunch. 2 making this treatment the most extensively 3 (Recessed from 12:30 p.m. to 3 reviewed and evaluated procedure for female stress 4 1:01 p.m.) 4 urinary incontinence now in use." 5 5 (Exhibit 9 marked.) Do you agree with that? 6 BY MR. SNELL: Doctor, I've handed you 6 A. I have not looked at that. 7 the Position Statement on mid-urethral 7 Q. "These scientific publications studied 8 8 sling-Urethral Slings for Stress Urinary all types of patients, including those with 9 Incontinence By IUGA. 9 co-morbidities, such as prolapse, obesity, and 10 You're familiar with this document? 10 other types of bladder dysfunction." 11 A. Yes, I am. 11 Have you analyzed that? 12 A. Independently analyzed it, I've read 12 Q. This is one of those professional 13 societies to which you belong today? 13 the studies concerning that. 14 A. That is correct. 14 Q. You haven't read all 2,000 15 O. And similar to the AUA statement that 15 publications they're referring to; correct? 16 we looked at, it talks about efficacy of the 16 A. No. That is correct. Yes. 17 mid-urethral slings; correct? 17 Q. It says, "It is, however, acknowledged 18 A. Correct. 18 that any operation can cause complications." 19 19 And that's a fair statement; correct? Q. And it talks about safety of 20 mid-urethral slings; correct? 20 A. There can be different sets of 21 A. Yeah. It discusses it, yes. 21 complications, but any procedure can have 22 22 Q. All right. In the third paragraph, complications. when they're talking about mid-urethral slings, 23 23 Q. "For mid-urethral slings these include 24 they state that "They have been shown to be as 24 bleeding, damage to the bladder and bowel, voiding 25 effective as more invasive traditional surgery 25 difficulty, tape exposure and pelvic pain; all of Page 135 Page 137 with major advantages of shorter operating and 1 these may require repeat surgery, but this is 2 admission times and a quicker return to normal 2 uncommon." 3 activities together with lower rates of 3 Do you see that? complications." 4 4 A. Yes, I do. 5 5 Do you see that? Q. A little further down, they talk about 6 A. Yes, I do. 6 "long-term effectiveness of up to 80 percent has 7 7 Q. Do you disagree with the IUGA position been demonstrated in studies including one which 8 has followed up a small group of patients for 8 statement? 9 9 17 years"; correct? A. I disagree. 10 Q. "This has resulted in the mid-urethral 10 A. That's what it states, yes. sling becoming the operation of choice in Europe, 11 Q. And in this IUGA statement has a list 11 12 Asia, South America, South Africa, Australasia," 12 of references -- do you have that? All right. A-u-s-t-r-a-l-a-s-i-a, "and North America for the 13 13 So for the 17-year study, you 14 treatment of SUI with several million procedures 14 understand that to be the Nilsson paper on the TVT 15 performed worldwide." 15 retropubic study? A. That's the only 17-year one. I'll 16 Do you see that? 16 make an argument that it's not TVT. 17 A. Yes, I do. 17 Q. Do you agree or disagree with that Q. What argument would you make that it's 18 18 19 statement that it is the operation of choice as 19 not TVT? 20 amongst the alternative surgeries? 20 A. Based upon the deposition by Arnaud 21 who said it's not a TVT product. And he doesn't 21 A. It is the most common procedure --2.2 Q. Okay. 22 know if it's the polypropylene mesh even used by 23 A. -- I mean, performed. 23 Ethicon -- or manufactured by Ethicon. 24 24 Q. Do you have any -- have you done any Q. A little further down it says, "There 25 is robust evidence to support the use of 25 independent confirmation of whether or not that

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Page 138 Page 140 1 product was TVT other than what you just 1 Correct. In June of 2013. 2 referenced with regard to Dr. Axel Arnaud's 2 O. Did you have to study for that exam? 3 deposition testimony? 3 A. Yes, I did. 4 A. The only way I'd have access to that 4 Q. Did part of that exam testing concern is via the deposition. It's impossible to know 5 5 polypropylene mid-urethral slings? 6 that in another independent source, but since Axel 6 A. Yes. 7 Arnaud is very high up in Ethicon and he states 7 Q. Was part of that exam concerning the 8 it's not TVT, I'm going to believe him. 8 Burch colposuspension and the autologous 9 Q. Do you know whether that mesh was a 9 pubovaginal sling? 10 Prolene -- polypropylene mesh? 10 A. It's been two years, and I can't 11 A. It was a polypropylene mesh, as what 11 recall exactly. I know they had Burch questions he said. Maybe made by Ethicon. Maybe made by and I know they had sling questions, yes. 12 12 13 Bard. He doesn't know. 13 Q. This says, "The polypropylene mesh mid-urethral sling is the recognized worldwide 14 Q. As a result IUGA supports the use of 14 monofilament polypropylene mid-urethral slings for 15 standard of care for the surgical treatment of 15 16 the surgical treatment of female stress urinary stress urinary incontinence." 16 17 incontinence." 17 Do you see that? On the first page. 18 Do you see that? 18 A. Unfortunately, no, I don't see it. 19 A. Yes, I do. 19 O. Here. 20 Q. Do you agree or disagree with IUGA's 20 A. I listen to -- oh, there on the bold. 21 21 Yes. I see it. support? 22 22 A. Disagree. Q. And you would agree it's within the Q. You've read the AUGS and SUFU standard of care for a female urologist or a 23 23 24 statement on mid-urethral slings? 24 pelvic floor surgeon to do a polypropylene mesh 25 A. Yes, I have. 25 mid-urethral sling like the TVT retropubic today? Page 139 Page 141 1 1 A. It is not malpractice to do that (Exhibit 10 marked.) 2 Q. BY MR. SNELL: You don't belong to 2 procedure. 3 AUGS, but you do belong to SUFU; right? 3 Q. It, therefore, is within the standard A. That -- yeah. They're sister 4 4 of care; correct? 5 5 societies. So I can attend AUGS meetings as a MR. CARTMELL: Object to the form. 6 member, but I am not formally in their membership 6 A. Well, as I said, it's not going to be 7 7 role. malpractice. It is an accepted treatment out 8 8 Q. SUFU has over 500 members? there. 9 A. I don't know the number. It's a lot. 9 Q BY MR. SNELL: You've reviewed --10 Q. AUGS -- do you know whether they 10 well, let me ask you: Have you reviewed the AUA represent more than 1,700 members? 11 stress urinary incontinence guidelines? 11 12 A. They have a lot. They have more than 12 A. Yeah. It depends which year you're 13 13 talking about. There's 2009 and others. SUFU. 14 Q. Do you have to be a urogynecologist or 14 Q. The 2009 and then the update in 2012? to have passed a subspecialty female pelvic 15 15 A. Yes. Yes. medicine or reconstructive surgery boards to be a 16 16 Q. All right. I think you pronounced the member of AUGS as opposed to SUFU? 17 17 lead author's name --18 A. No. You can be a member of AUGS A. Oh, Dmochowski. Call him Roger. 18 19 without having any credentials. To take the board 19 Q. For example, in those AUA stress 20 exam, the female pelvic medicine reconstructive 20 urinary incontinence guidelines, they recognize 21 21 surgery, you just have to supply certain logs, mid-urethral, retropubic, trans -- they -- strike 22 have a certain amount of volume of cases and take 22 that. 23 23 In the AUA stress urinary incontinence the exam. 24 24 Q. You took that exam and passed it; guidelines they recognize the retropubic right? 25 25 polypropylene mid-urethral sling like the TVT

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Page 142 Page 144 retropubic as being a suitable surgical option for 1 1 MR. CARTMELL: He answered it. 2 surgeons to turn to; correct? 2 Objection. Asked and answered. 3 3 A. Yeah. Using the terminology you did, We're reading it. He says that are 4 it is one of the treatment options available. 4 "currently available on the market, I agree with 5 5 Q. And they looked at the literature, did you, they are all unsafe." 6 a systematic review, and they analyzed the data on 6 MR. SNELL: He's not agreeing with me, 7 mid-urethral slings, Burch, and the autologous 7 because I didn't posit the question as "please 8 pubovaginal slings, and came to that conclusion? 8 agree with me." I'm just asking his opinion. Q. BY MR. SNELL: Understand. So let me 9 A. Yes. They analyzed more than just 9 10 just -- let's just strike that and make sure we 10 those, but, yes, those are some of the ones they 11 analyzed. 11 get a clean Q and A. 12 12 Q. Those were the main groups that they Do you believe, Dr. Elliott, that all 13 reported on; correct? 13 of the polypropylene mesh mid-urethral slings available for the treatment of female stress 14 A. I'd have to look at your question --14 it was, you know, retropubic, transobturator, 15 urinary incontinence are unsafe? 15 pubovaginal, and Burch. 16 A. I believe that all the currently 16 17 Q. Right. In the AUGS/SUFU statement 17 available mesh slings available on the market as 18 they say, "The procedure is safe, effective, and 18 of right now and their technique are unsafe. has improved the quality of life for millions of 19 19 Q. You do not disagree, I take it, that 2.0 women." 20 some women can have, following the TVT retropubic 21 Do you see that? I'm sorry. Right 21 placement, cure of their incontinence and 22 22 improvement in quality of life? where we were at. 23 MR. CARTMELL: Object to the form. 2.3 A. Oh, I'm sorry. Yes, I see that. 24 Q. Do you agree or disagree with 24 A. It is a hypothetical individual, but 25 AUGS/SUFU? 25 there are going to be studies that show, as of Page 143 Page 145 1 right now, they have had -- they've reached that. A. Disagree. 1 2 Q. You disagree that the procedure is 2 The question is what will happen with long-term 3 effective? 3 follow-up. 4 4 Q BY MR. SNELL: Do you only treat A. No. 5 Q. Do you disagree that the procedure has 5 female stress incontinence or do you also treat 6 improved the quality of lives for millions of 6 male stress incontinence? 7 women? 7 A. I treat both female and male voiding 8 A. I have no way of proving that. 8 dysfunction. 9 Q. You disagree the procedure is safe? 9 Q. Do males have stress urinary 10 10 A. Yes. incontinence? 11 Q. And do you believe that all 11 A. Following prostate surgery. Almost 12 polypropylene mesh mid-urethral slings are unsafe? 12 exclusively that's what I see them for. A. That are currently available on the Q. Do you use any medical devices for the 13 13 14 market now, I agree with you they are all unsafe. treatment of male stress urinary incontinence? 14 A. Yes. The AMS800 -- American Medical 15 Q. Let me rephrase that. I don't think I 15 16 asked you to agree with me. 16 Systems 800 artificial urinary sphincter. Q. And are there any lifelong registries 17 MR. CARTMELL: You did. 17 monitoring those patients? 18 MR. SNELL: No, I didn't. I think --18 MR. CARTMELL: Do you disagree? 19 19 A. Yes. The AMS -- American Medical 20 MR. SNELL: Disagree the procedure is Systems keeps a registry of all implants. Every 20 21 safe, yes. 21 time I do a surgery on them, they are notified, 22 Q BY MR. SNELL: All right. My question 22 and I have to fill out a summary of what I did, 23 was: And do you believe that all polypropylene 23 revision, complications, et cetera. 24 mesh mid-urethral slings are unsafe? 24 Q. Do those track the patients lifelong? 25 A. Okay. All the --25 A. Yes.

Page 146 Page 148 1 Q. Where is that data published, if at 1 sentence? 2 all? 2 A. That is outlined in detail in my 3 3 A. It is not published. It's at AMS. expert report, going to all those various issues. 4 American Medical Systems, which is based in 4 The extensively studied, I agree with. Minnetonka, Minnesota. And that goes back to 5 5 Safe, I disagree with, as mentioned in б 6 my expert report, my clinical experience, my 1972. 7 7 (Exhibit 11 marked.) discussion in national and international meetings. 8 8 Q BY MR. SNELL: I've handed you Effective relative to other treatment Exhibit 11. This is the AUGS -- one of the AUGS 9 9 options, I agree with. We've established that 10 position statements; correct? 10 already. 11 A. Correct. This one is on pelvic floor 11 Remains a leading treatment 12 12 disorders, though. opposition, I agree. It is common, the use. I 13 Q. If you look at paragraph 5 where they 13 don't have a problem with that. talk about stress urinary incontinence and mesh 14 Current gold standard of care for 14 15 15 stress urinary incontinence. Gold standard means slings. 16 A. On page 3, I think? 16 absolutely nothing to me. I don't even know what 17 17 Q. Yes. that means. The term gets thrown around a lot. 18 A. I'm there. 18 Is it something that is compared to? 19 19 Q. It says, "Full length mid-urethral It is the best. So it is -- I agree with the 2.0 slings, both retropubic and transobturator" -- and 20 leading treatment option. There are other things 21 just so we're clear, the TVT retropubic is a full 21 that are available that it could be compared to. 22 22 length retropubic mid-urethral sling; correct? Burch sling or the TVT. 23 2.3 A. I'm sorry to interrupt you. I just Q. The term "gold standard," that's 24 don't know where you are -- I see the paragraph. 24 something that you've seen commonly in the medical 25 I just don't know which --25 literature; correct? Page 147 Page 149 1 Q. The bottom five, six lines. 1 A. It is thrown around extensively. It's 2 A. Starting --2 a bad term. 3 Q. Actually, the bottom three lines. 3 Q. You've seen people refer to the 4 That's okay. 4 autologous pubovaginal sling as a gold standard; 5 5 A. Starting with "Full-length," yes. correct? 6 Q. Okay. The TVT retropubic device is a 6 A. Correct. 7 7 full length retropubic mid-urethral sling; right? Q. You've seen people refer to the Burch 8 A. Okay. I'm sorry. I was trying to 8 colposuspension as the gold standard; correct? 9 find where you -- I thought you were reading. I'm 9 A. Correct. 10 10 Q. You've seen people refer to the TVT sorry. 11 11 retropubic device as a gold standard; correct? The question was, is the 12 full-length -- well, I don't necessarily know what 12 A. Correct. 13 they mean by a full length. Everything is a full 13 Q. To your knowledge or understanding, is 14 length, whether it's short or long, but this is 14 there a -- strike that. 15 the longest length of mesh. 15 To your knowledge and understanding, Q. It says they "have been extensively what does it mean to be a gold standard within the 16 16 studied, are safe and effective relative to other 17 17 art of pelvic surgery? 18 treatment options and remain the leading treatment A. It should be -- this is my 18 19 option and current gold standard of care for 19 interpretation of it. Gold standard should be the procedure 20 stress incontinence surgery"; correct? 20 21 21 A. That's what they state, yes. that has the safest, the best, which everything 22 Q. Do you disagree or agree with AUGS? 22 should be compared to. The gold standard, unlike 23 A. I disagree. 23 gold. Gold cannot -- the true iron -- or true element cannot be replaced. Okay. Gold standards 24 Q. What exactly do you disagree with 24 25 there in that paragraph -- sorry. In that 25 have evolved.

Page 150 Page 152 1 In the '90s, it was the Raz, R-a-z, 1 correct? 2 urethropexy. That's gone now. So gold standard 2 A. That is correct. 3 is a shifting thing. It's what everything should 3 And have you reviewed this document Q. 4 be compared to because it has proven itself to be 4 before? 5 5 the best in all factors involved. A. Yes, I have. 6 Q. Back when the Raz urethropexy was 6 Q. Okay. Were you involved in the 7 reported in the literature, there weren't any 7 drafting of this document? 8 8 randomized control trials in that procedure, A. No, I was not. And the interesting 9 comparing it to the Burch and pubovaginal sling; 9 thing is, being a member of the female urology 10 10 correct? section, I don't recognize very many of these 11 A. I'd have to look at the literature. I 11 names. 12 12 don't recall any. Q. This was published in 2012; right? 13 Q. Did people refer to, like, the Raz 13 A. procedure as the gold standard, not based on 14 14 Q. And what they did was, using their comparative -- direct comparative data? 15 methodology, they used evidence-based medicine 15 16 A. The gold standard relative to urinary 16 methodology and did individual literature search 17 incontinence has really evolved since TVT came 17 strategies? 18 out. And that's when there was now a comparison. 18 A. Correct. For the treatment of both 19 You had some people were for Burch, some people 19 men and women. for sling, some people for the Raz. The Raz fell 20 20 Q. Fair enough. 21 out. Wasn't effective. Then TVT was around. 21 And for the treatment of stress 22 22 Then the argument came of this gold standard. urinary incontinence in women, they concluded that But, again, it's not like you can type up a paper mid-urethral slings should be offered as the first 23 23 24 and put in equations and come up with, oh, this 24 line treatment; correct? 25 one's gold. It's relative. 25 A. I'd have to see where you're quoting. Page 151 Page 153 1 Q. There are other procedures for stress I just don't see it in the document. The 2 urinary incontinence that have also fallen out of 2 document's fairly long. 3 favor, like the MMK that you earlier referenced; 3 Q. Okay. The third page, go to the 4 surgical algorithm. 4 5 5 A. Yes. A. Correct. There are many that have 6 faded away. 6 Q. Where you see if a person has -- a 7 woman; right? The top diagram is for treatment in 7 Q. The anterior repair is another; 8 women; right? 8 correct? 9 A. Well, I don't know if you're talking 9 A. Correct. 10 about the Kennedy Kelly plication. That is still 10 O. And for stress incontinent women, done somewhat, but it's not, what you would say, 11 first line is "Offer mid-urethral sling"; correct? 11 12 in the upper tier of effective treatments. 12 A. Yeah. Or "consider peri-urethral Q. And that would be based on randomized 13 injections"; right. 13 14 control trial data or cohort studies? 14 Q. Right. So mid-urethral sling would be a first-line surgical option for the treatment of 15 A. Cohort studies. 15 stress urinary incontinence in women, according to 16 MR. SNELL: Let's mark this as the 16 the EAU Guidelines; correct? 17 next one. 17 18 A. Yeah. Yes. This algorithm, 18 (Exhibit 12 marked.) established in 2012, that is what they offer as 19 BY MR. SNELL: Exhibit 12 is the EAU 19 20 Guidelines on Surgical Treatment of stress --20 first-line treatment. 21 21 strike that. Q. And they also identify the 22 EAU Guidelines -- let me get a better 22 mid-urethral sling as a first-line surgical option 23 23 if there's mixed incontinence, but the stress is question out. 24 24 Exhibit 12 is the EAU Guidelines on predominant; correct? 25 Surgical Treatment of Urinary Incontinence; 25 A. Yes.

	Page 154		Page 156
1	Q. And do you disagree with the EAU	1	A. Yes, I do.
2	Guidelines in that regard?	2	Q. ICS is another organization you belong
3	A. Yes, I do.	3	to; correct?
4	(Exhibit 13 marked.)	4	A. That is correct.
5	Q BY MR. SNELL: This is the Guidelines	5	Q. And so they cover different
6	on Urinary Incontinence from the EAU 2015.	6	conditions, like overactive bladder, and then they
7	Do you see that?	7	have stress urinary incontinence beginning on
8	A. Yes, I do.	8	page 12.
9	Q. So this is when you were in your role	9	A. Yes.
10	in that pertinent group; correct?	10	Q. Have you seen these before?
11	A. That's correct.	11	A. Um-hum. Yes, I have.
12	Q. First page says, "Mid-urethral slings	12	Q. Do you use these statements with any
13	are now the most frequently used surgical	13	of your patients?
14	intervention in Europe for women with stress	14	A. No.
15	urinary incontinence."	15	Q. I know ACOG and the Urology
16	Do you see that?	16	Foundation, the branch of the AUA, have patient
17	A. I don't see it. But I heard you read	17	guides, publications, things like that.
18	it. Okay. Yes. Yes, I see it. Yes.	18	Do you use any of those materials with
19	Q. And for the purpose of the guidelines,	19	your patients?
20	they did a new meta-analysis; correct?	20	A. We have them available for education
21	A. Correct.	21	purposes. We'll go through it. But to be honest,
22	Q. Were you consulted on these	22	usually that's so overwhelming for the average
23	guidelines?	23	individual that we don't rely on them heavily.
24	A. No, I was not.	24	Q. Does Mayo Clinic have its own patient
25	Q. But these are people who are in the	25	education handouts that you use
23		23	Page 157
	Page 155		Page 15/1
-	1	_	
1	group that you belong to?	1	A. Yeah. We have a
2	A. They're in members of the EAU. But	2	A. Yeah. We have aQ for stress urinary incontinence?
2	A. They're in members of the EAU. But these are not people in the subsection of female	2	A. Yeah. We have a Q for stress urinary incontinence? That's what I'm focused on.
2 3 4	A. They're in members of the EAU. But these are not people in the subsection of female urology and functional urology. And I'm on the	2 3 4	 A. Yeah. We have a Q for stress urinary incontinence? That's what I'm focused on. A. We have an overarching, for
2 3 4 5	A. They're in members of the EAU. But these are not people in the subsection of female urology and functional urology. And I'm on the board of those. And I know some of their names,	2 3 4 5	 A. Yeah. We have a Q for stress urinary incontinence? That's what I'm focused on. A. We have an overarching, for incontinence. Within it is a subsection of stress
2 3 4 5 6	A. They're in members of the EAU. But these are not people in the subsection of female urology and functional urology. And I'm on the board of those. And I know some of their names, but they're not sitting on the board.	2 3 4 5 6	 A. Yeah. We have a Q for stress urinary incontinence? That's what I'm focused on. A. We have an overarching, for incontinence. Within it is a subsection of stress incontinence. But it's not specific just to
2 3 4 5 6 7	A. They're in members of the EAU. But these are not people in the subsection of female urology and functional urology. And I'm on the board of those. And I know some of their names, but they're not sitting on the board. Q. Were you even aware that these urinary	2 3 4 5 6 7	 A. Yeah. We have a Q for stress urinary incontinence? That's what I'm focused on. A. We have an overarching, for incontinence. Within it is a subsection of stress incontinence. But it's not specific just to stress.
2 3 4 5 6 7 8	A. They're in members of the EAU. But these are not people in the subsection of female urology and functional urology. And I'm on the board of those. And I know some of their names, but they're not sitting on the board. Q. Were you even aware that these urinary incontinence guidelines were published in 2015 by	2 3 4 5 6 7 8	 A. Yeah. We have a Q for stress urinary incontinence? That's what I'm focused on. A. We have an overarching, for incontinence. Within it is a subsection of stress incontinence. But it's not specific just to stress. Q. Okay. On page 13 where they're
2 3 4 5 6 7 8	A. They're in members of the EAU. But these are not people in the subsection of female urology and functional urology. And I'm on the board of those. And I know some of their names, but they're not sitting on the board. Q. Were you even aware that these urinary incontinence guidelines were published in 2015 by EAU?	2 3 4 5 6 7 8 9	 A. Yeah. We have a Q for stress urinary incontinence? That's what I'm focused on. A. We have an overarching, for incontinence. Within it is a subsection of stress incontinence. But it's not specific just to stress. Q. Okay. On page 13 where they're talking about it says, "Definitive therapy for
2 3 4 5 6 7 8 9	A. They're in members of the EAU. But these are not people in the subsection of female urology and functional urology. And I'm on the board of those. And I know some of their names, but they're not sitting on the board. Q. Were you even aware that these urinary incontinence guidelines were published in 2015 by EAU? A. No. I was aware they were published.	2 3 4 5 6 7 8 9	A. Yeah. We have a Q for stress urinary incontinence? That's what I'm focused on. A. We have an overarching, for incontinence. Within it is a subsection of stress incontinence. But it's not specific just to stress. Q. Okay. On page 13 where they're talking about it says, "Definitive therapy for SUI is surgical."
2 3 4 5 6 7 8 9 10	A. They're in members of the EAU. But these are not people in the subsection of female urology and functional urology. And I'm on the board of those. And I know some of their names, but they're not sitting on the board. Q. Were you even aware that these urinary incontinence guidelines were published in 2015 by EAU? A. No. I was aware they were published. I was not part of their publishing.	2 3 4 5 6 7 8 9 10	A. Yeah. We have a Q for stress urinary incontinence? That's what I'm focused on. A. We have an overarching, for incontinence. Within it is a subsection of stress incontinence. But it's not specific just to stress. Q. Okay. On page 13 where they're talking about it says, "Definitive therapy for SUI is surgical." A. Correct.
2 3 4 5 6 7 8 9 10 11 12	A. They're in members of the EAU. But these are not people in the subsection of female urology and functional urology. And I'm on the board of those. And I know some of their names, but they're not sitting on the board. Q. Were you even aware that these urinary incontinence guidelines were published in 2015 by EAU? A. No. I was aware they were published. I was not part of their publishing. Q. Does the EAU still recognize the	2 3 4 5 6 7 8 9 10 11	A. Yeah. We have a Q for stress urinary incontinence? That's what I'm focused on. A. We have an overarching, for incontinence. Within it is a subsection of stress incontinence. But it's not specific just to stress. Q. Okay. On page 13 where they're talking about it says, "Definitive therapy for SUI is surgical." A. Correct. Q. You would agree with that; correct?
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Page 158 Page 160 1 with appropriate counseling do not need to have 1 A. Yes, that is a fair statement. 2 surgery. So depends how you're defining 2 Q. And I mean, you're a better surgeon, 3 3 definitive, I suppose. There are other things don't you think, today than when you were coming 4 4 out of your fellowship; correct? that work. 5 5 Q. Right. So pelvic floor exercises; A. Correct. 6 6 correct? Q. And part of that is because you've 7 A. Correct. That's one of them. 7 amassed more surgical volume experience; correct? 8 8 A. That is one aspect of it. And I have Q. And bulking agents; correct? 9 A. Correct. 9 read hundreds of journal articles, attend all the 10 10 Q. And you're aware of data showing national and international meetings, and discuss surgical -- when you compare stress urinary 11 with high level colleagues. But, yes, there 11 incontinence surgery, the efficacy of that 12 should be progress. But individuals who don't 12 13 compared to those alternatives, non-surgical 13 have the advantages I do, aren't necessarily going alternatives, surgery has better results? 14 to progress. They could actually worsen. 14 A. Correct. I agree with that. I just 15 (Exhibit 15 marked.) 15 have a problem with definitive therapy. 16 Q BY MR. SNELL: This is the NICE, 16 17 Q. Right. 17 N-I-C-E, Clinical Guideline 171 issued A. It's a little too dogmatic for me. 18 September 2013 on urinary incontinence in women. 18 Q. Okay. "Worldwide, mid-urethral slings 19 Are you familiar with this? 19 20 comprised of synthetic mesh have become the 20 A. Yes, I am. 21 treatment of choice for SUI." 21 Q. Turn to page 24. 22 22 And we've already discussed that; A. Okay. right? 23 Q. And just as background, you're aware 23 24 A. Ad nauseam, yes. 24 then that in the generation of this NICE guideline 25 "Long-term data are robust and 25 they searched the medical literature? Page 159 Page 161 demonstrate durable efficacy with a very low 1 1 A. Yes. They have done similar to what 2 complication rate, particularly in experienced 2 the AUA guidelines are. All these societies do 3 hands." 3 essentially the same thing. 4 You would agree with that? 4 Q. And they say for when offering --5 5 MR. CARTMELL: Object to the form. strike that. 6 A. I agree with parts and disagree with 6 They state, paragraph 1.10.3, "When 7 7 other parts. So in totality, I would have to say offering a synthetic mid-urethral tape procedure 8 surgeons should: Use procedures and devices for 8 I disagree. 9 Q BY MR. SNELL: What do you agree with 9 which there is current high quality evidence of 10 10 efficacy and safety." in that sentence? 11 A. Long-term -- oh, what do I agree with? 11 Do you see that? 12 12 A. Yes, and I agree with that statement. Sorry. 13 Q. They also say use only -- "only use a Q. Yes. 13 14 A. I think, as we established, "durable device that they have been trained to use." 14 15 efficacy," I'm okay with that. 15 Do you agree with that? And then, "particularly in experienced 16 16 A. Yes, I do. hands," as I've stated before, more experienced 17 17 Q. Do you use any devices that you 18 surgeons, the data is very clear. Arnaud even weren't trained on? 18 19 admitted they're going to have better results. 19 A. No. 20 "Very low complication rates," I 20 "Use a device manufactured from type 1 21 disagree with. Strongly. 21 macroporous polypropylene tape." 22 Q. For any type of stress incontinence 22 Do you agree with that? 23 surgery, we can agree that more experienced 23 A. If he's referring to the Amid type 1, 24 surgeons are going to typically give better I disagree with that. 24 25 results; right? 25 Q. Well, there's no other type 1 system

41 (Pages 158 to 161)

Page 162 Page 164 1 that reports and identifies macroporous versus MR. CARTMELL: Let him answer. 2 microporous than Amid; correct? 2 A. And I'm saying, if all that were true, 3 3 A. There is no industry standard we would not be sitting here with all the 4 regarding that. However, I'm stating that Amid is 4 degradation problems and inflammatory responses. 5 5 archaic. So macroporous is a relative term. We And then I know what I read with Ethicon 6 have to define what macroporous is. 6 depositions, that they all agree that is too small 7 7 Q. So there is no -- so macroporous means and that is not the standard they go by. So all 8 8 macro, large; porous, pores; correct? I'm saying is I do not agree with this as it's 9 A. That is the literal translation of the 9 stated. 10 10 word, yes. Q BY MR. SNELL: But my question to you 11 Q. And in the Amid classification, 11 is: Based on your knowledge and scientific macroporous is defined as greater or equal to 12 12 understanding, can macrophages extend pseudopodia 13 75 microns; is that correct? 13 to try to get to bacteria in spaces less than 14 A. Yeah. Yeah. Greater than or equal 14 5 microns? 15 15 A. They can try, but are they successful? to, yeah, that's what Amid does. 16 Q. And that's because the cells involved 16 Q. Are they --17 17 in tissue ingeneration, combating bacteria are all A. And this is -- this is 75 microns when 18 cells that are smaller than 75 microns; correct? 18 it comes out of the box. But that's not under stress. So it decreases. So, again, where 19 A. Well, I mean, it goes beyond that, 19 20 20 that the 75 microns and be able to have the they're really insufficient and where I have privy 21 inflammatory responders, be able to perforate 21 to information is not what it comes out of the 22 22 box, when it's been implanted in the woman and through that. 23 23 But, again, the data shows, Ethicon after contraction of scarring. 24 agrees as stating, that it's 1,000 microns now and 24 Q. The pore size in the mesh for TVT is 25 a minimum under strain. So what I'm saying is the 25 much larger than 75 microns out of the box. We Page 163 Page 165 Amid is archaic, and not the standard used 1 1 can agree to that. 2 anymore. 2 A. Out of the box, I have seen numbers 3 Q. Do any of the professional societies 3 all over the board because they don't have a --4 that you belong to state and define macroporous as 4 there's not a circle with a diameter. There's 5 anything other than that which the Amid 5 wires or fibers going everywhere. So there's not 6 classification states it as, greater than or equal 6 a uniform size. So you may have one greater than 7 7 to 75 microns? 75. Right next to it, you have one at 10 microns. 8 8 A. I have yet to see that in any of the And that's what P.A. Newell said under oath. 9 society statements that they state that because 9 Q. Have you ever put the TVT mesh out of 10 they don't know the information I've been privy 10 the box next to a millimeter ruler and looked --11 11 A. Yes. 12 Q. We can agree that those inflammatory 12 Q. -- and seen whether the pores are cells are all smaller than 75 microns; correct? 13 13 larger than a millimeter? 14 MR. CARTMELL: Object to the form. 14 A. Absolutely, I have. 15 A. Not necessarily, because some of the 15 Q. And those pores are larger than a millimeter out of the box; correct? 16 macrophages, especially under activated states, 16 can be up to 80 micrometers or greater. A. Absolutely not. A millimeter? 17 17 18 Q BY MR. SNELL: Well, you know Q. Yes. 100 microns for a TVT. 18 19 macrophages can enhance pseudopodia, which can get 19 A. Out of the box. You might be able to into spaces that are less than 5 microns; don't 20 find some, but right next to it it's not. But, 20 21 you. 21 again, that doesn't matter out of the box. It's 22 A. Then if all that were true --22 when it is implanted in the woman under load. Q. Answer my question. Do you know that 23 23 Q. Yes. But those inflammatory cells 24 don't just go in circles; do they, sir? 24 or not? 25 A. I was answering your question. 25 A. Well, there's going to be

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Page 166 Page 168 1 literature -- and let's go to my expert report on 1 have been something very good for Ethicon to have 2 this, on degradation and pore size. I've got the 2 3 3 literature stated from individuals like Klinge, MR. SNELL: Move to strike everything 4 4 up to the responsiveness about "when they" with Klosterhalfen, Costello, Clave, et al., who will 5 5 disagree with you, that, no, that pore size is regard to TVT, no. 6 6 Q. BY MR. SNELL: You call him Klingel. insufficient to have adequate tissue incorporation 7 7 and prevention of the inflammation which then A. Klinge. 8 8 causes degradation, et cetera. Q. Is it Klingel or Klinge? Because I 9 Q. Klinge and those doctors were 9 heard it all different ways. 10 assessing hernia mesh, not the TVT device in the 10 MR. CARTMELL: I thought it's Klinge. 11 application of stress incontinence in women; 11 A. It's Klinge. 12 12 MR. CARTMELL: Klinge, okay. He said correct? 13 MR. CARTMELL: Object to the form. 13 Klinge. 14 14 A. Okay. And then --Q BY MR. SNELL: Oh, I think he said 15 15 Klingel, like Chris Klingel? I just want to make Q BY MR. SNELL: Is that a yes or no? A. No. I can't answer a separate yes or 16 sure I know we're talking about the same person. 16 17 no because my understanding is they're doing 17 It's the same person; right? 18 hernia meshes in the abdomen. TVT is a hernia 18 A. Klinge, yeah. 19 19 mesh being put into the vagina. So it's going to Q. Okay. Look, I'm even worse than you 2.0 be a worse of an environment because of higher 20 are with names, and you're pretty good with names. 21 bacteria counts. Different types of strain. So 21 I'm bad with them. All right. 22 22 MR. CARTMELL: Chris Klinge. if it performs poorly in the abdomen, it's going Q BY MR. SNELL: So we were looking at 2.3 to perform worse in the vagina. 23 24 Q. All of the citations where you cite to 24 that NICE guideline. It says down --25 Klinge and those doctors in your report are in the 25 MR. CARTMELL: NICE or NICE. Page 167 Page 169 1 1 Q BY MR. SNELL: That's a good one. context of hernia: correct? 2 A. All right. Let's go to my expert 2 It's abbreviated NICE. 3 report on pore size, because if we're going to 3 A. I know it. 4 talk about this in detail -- I spent a lot of time 4 Q. All right. So for the NICE guideline 5 5 on this, and so we can go to that. So I have it under colposuspension, it says, "Do not offer a 6 down here beginning around page 18, where I 6 laparoscopic colposuspension as a routine 7 reference internal documents, studies, et cetera. 7 procedure for the treatment of stress UI in 8 8 Q. None of them being TVT retropubic women." 9 9 Do you see that? device studies that were in women; correct? 10 10 A. Yes, I do. A. Well, if --11 Q. You've never done a laparoscopic 11 Q. That's a yes or no. So which one is 12 12 Burch; right? it? 13 MR. CARTMELL: No. You can answer. 13 A. No, I have not. 14 Let him answer. You cut him off again. That's 14 Q. Why would they say that respect to the 15 twice in the last minute and a half. 15 laparoscopic Burch? 16 MR. SNELL: No, no. I can say a yes 16 A. Well, the laparoscopic Burch is really 17 17 or no question, Tom; you know that. not a -- let me start over. 18 MR. CARTMELL: So let him answer the 18 A laparoscopic Burch is not a true 19 19 Burch procedure. They have to modify it, and it's question. Go ahead. 20 20 not really even a Burch. And the success has been MR. SNELL: It's a yes or no. 21 poor with the laparoscopic procedure called the 21 MR. CARTMELL: Go ahead. 22 A. They have done studies looking at the 22 laparoscopic Burch. 23 hernia mesh. Have Klinge, Klosterhalfen and 23 Q. Under Biological slings they say, "Do 24 24 not offer anterior colporrhaphy, needle others done it specifically with the TVT? No. 25 But I have to extrapolate the data. That would 25 suspensions, paravaginal defect repair and the MMK

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	Page 170		Page 172
1	for the treatment of stress UI."	1	Q. I printed this out September 18th,
2	Do you see that?	2	2015. You see that at the bottom?
3	A. Yes, I do.	3	A. Yes.
4	Q. Is that an accurate, up-to-date	4	Q. This is where the Mayo Clinic is
5	statement with regard to the practice of	5	talking about urinary incontinence, particularly
6	surgically treating female stress urinary	6	for women; right?
7	incontinence?	7	A. Yes.
8	A. This is a very simplified, infantile	8	Q. And you see on the second page, Mayo
9	form of it, but anterior colporrhaphy is to treat	9	Clinic.
10	prolapses, not incontinence.	10	And you still work at Mayo Clinic;
11	Q. Okay.	11	right?
12	A. Needle suspensions have fallen out of	12	A. Correct.
13	favor because they don't work. Paravaginal defect	13	Q. Talks about "Sling procedures to treat
14	repair, it's, again, a prolapse repair. It's not	14	stress incontinence"; correct?
15	incontinence. MMK, in the correct the high-volume	15	A. Correct.
16	surgeon's hands can have decent success with it,	16	Q. And they say Mayo Clinic are you
17	but that's not everybody. So I agree that it's	17	employed by Mayo Clinic or are you an independent
18	not going to be, by any means, for the	18	contractor?
19	overwhelming majority of people a first-line	19	A. No. I'm employed by Mayo.
20	treatment.	20	Q. Mayo Clinic says sling procedures and
21	Q. Is the MMK taught at all to residents	21	bladder neck suspension procedures are the most
22	and fellows in Mayo?	22	common surgical procedures; right? Falling into
23	A. In the GYN department it may be, but	23	those categories?
24	not in urology at all.	24	A. I don't see where you're reading from.
25	Q. Do you think it's a fair statement	25	Q. Let me withdraw. Restate it.
	Page 171		Page 173
1		1	
1	that as between GYNs versus urologists, GYNs tend	1	MR. CARTMELL: Where's it say that?
2	to do more colposuspension procedures than	2	Q. BY MR. SNELL: The topic under Sling
3	urologists, like yourself tend to favor slings	3	procedures to treat stress incontinence on page 2.
4	more?	4	Are you there?
5	MR. CARTMELL: Object to the form.	5	A. Yes.
6	A. Colposuspension just means a vaginal	6	Q. All right. And Mayo Clinic, your
7	prolapse repair. So that's what you're talking	7	employer, says, "Most surgical procedures to treat
8	about. They do more prolapse than we do?	8	stress incontinence fall into two main categories:
9	Q BY MR. SNELL: No. They do more like	9	Sling procedures and bladder neck suspension
10	Burch and MMK?	10	procedures."
11	A. Oh, yes. Oh, okay. I see what you're	11	A. That's what it states, but the Mayo
12	saying.	12	Clinic doesn't state anything. It's a building.
13	That would probably be a fair	13	So this is a writer that has been hired to do
14	statement, yes.	14	this, which I had no role in, but that's what they
15	(Recessed from 1:45 p.m. to	15	state there.
16	1:50 p.m.)	16	Q. Well, Mayo Clinic doesn't put
17	(Exhibit 16 marked.)	17	unreliable information on their web site to
18	Q BY MR. SNELL: Doctor, I've handed you	18	patients; do they?
19	Exhibit 16. This is from the Mayo Clinic	19	A. No. Again, I'm saying, Mayo Clinic is
20	regarding urinary incontinence.	20	a building. So I'm saying it's like saying the
ר (י	Is this the information you had	21	White House said something. Well, no a person
21	-	~ ~	
22	earlier referenced that Mayo puts out regarding	22	said it.
22 23	earlier referenced that Mayo puts out regarding urinary incontinence?	23	But I'm saying, this is what is stated
22	earlier referenced that Mayo puts out regarding		

44 (Pages 170 to 173)

Page 174 Page 176 1 procedure, your surgeon uses strips of synthetic 1 material, infection and pain." 2 mesh, your own tissue or sometimes animal or donor 2 That part I agree with. But in my 3 tissue to create a sling or 'hammock' under your 3 department, in Urology, no one uses meshes, except 4 urethra or bladder neck; correct? 4 for me one time in the past 2-1/2 years. I cannot 5 5 speak for the gynecologists. But I was not part A. Correct. 6 6 of writing this document. Q. And that's accurate; right? 7 7 A. That is correct; yes. Q. So you disagree with the Mayo Clinic's 8 8 Q. Depending upon which option a surgeon web site. chooses to offer to his or her patients; correct? 9 9 MR. CARTMELL: Object to the form. He 10 10 A. That's correct; yes. has already answered that question. Okay? You asked him specifically what the web site says. He 11 Q. "The sling procedure that's best for 11 you depends upon your individual situation," it 12 said he disagrees with it. So don't answer that. 12 13 13 Q BY MR. SNELL: How about this? A says. 14 little further down it says, "A conventional sling 14 You'd agree with that? 15 15 sometimes requires a larger incision than a A. Correct. Q. It's got Tension-free sling under tension-free sling. You may need an overnight 16 16 17 that. You with me? 17 stay in a hospital and usually a longer recovery 18 18 period. You may also need a temporary catheter A. Yes. 19 "No stitches are used to attach the 19 after surgery while you heal." You agree with that; right? 20 tension-free sling, which is made from a strip of 20 synthetic mesh tape"; correct? 21 21 22 22 A. Correct. Q. Do you teach your patients for whom Q. And that's like the TVT retropubic you do an autologous sling self-catheterization? 23 23 24 device; correct? 24 A. No. 25 A. That would be one of them, but there'd 25 You had mentioned -- we were talking Page 175 Page 177 be a lot in that category, yes. about -- strike that. 1 1 2 Q. "Instead, body tissue holds the sling 2 We were talking about the 17-year 3 in place"; correct? 3 paper by Nilsson, et al.? 4 A. Correct. 4 A. Correct. 5 5 Q. "Eventually scar tissue forms in and Q. And you had said you were not sure as 6 around the mesh to keep it from moving." 6 to whether that study followed patients who had 7 That's correct? 7 received the Prolene mesh? 8 8 A. Yeah. That is part of the problem, A. Oh, I said Arnaud was not sure, and so 9 9 subsequently I'm not sure. but, yes. 10 Q. And then they talk about retropubic 10 Q. I'm not asking about Arnaud. I'm 11 and transobturator approaches that we've discussed 11 asking you. 12 today; right? 12 A. I was clarifying. 13 Q. Okay. So what was your methodology in A. Correct. 13 14 Q. Then on the next page, the Mayo Clinic 14 selecting that one quote out of Arnaud's multiple says, "Using surgical mesh is a safe and effective 15 15 days of testimony? way to treat stress urinary incontinence." 16 16 MR. CARTMELL: Object to the form. A. That is what --17 17 I'm not sure what you mean. Q. You agree with that; right? A. My methodology was, in this one very 18 18 A. I disagree with that. 19 straightforward. I read the deposition. They 19 20 Q. So you disagree with your employer, asked Arnaud questions, is this TVT, and he says, 20 21 the Mayo Clinic, that surgical mesh is a safe and 21 no, similar, but it is not TVT. 22 effective way to treat stress urinary 22 They say, is this polypropylene 23 incontinence? 23 Ethicon, and he says, to the effect, no it could 24 24 be ours. It could be Bard's. I don't know. So A. And it says, "However, complications 25 can occur in some women, including erosion of the 25 methodology on this one is straightforward.

45 (Pages 174 to 177)

Page 178 Page 180 1 Q BY MR. SNELL: So you believe the 1 have read him say. 2 testimony was in -- that he gave was in regards to 2 Q. Right. The jury can ultimately hear 3 testimony and decide whatever they want to. the Nilsson study? 3 4 A. In the original Ulmsten study that has 4 A. Correct. 5 subsequently been carried forward to 17 years. 5 Q. But for you as a doctor, this is 6 Q. Let's mark that. 6 medical literature. Did you read this and ignore 7 7 (Exhibit 17 marked.) it or did you not know about this? 8 Q BY MR. SNELL: You recognize this, 8 A. Oh, I knew it. I knew it very well. Doctor, to be that same study we've been I read all these, including the 17-year one. I 9 9 10 discussing by Nilsson, et al.? 10 also know that Ulmsten was paid \$400,000, which 11 A. That is correct. That is a --11 Arnaud said was a conflict of interest and would 12 12 MR. CARTMELL: The 17 year? bias the results. I also know from other things 13 A. That's what I'm trying to find out. 13 that they don't necessarily write down what the MR. CARTMELL: This isn't the 17 year. truth is. All I know is the authors were getting 14 14 15 paid \$400,000 originally and are getting money, 15 This is 2000 --16 save TVT. The medical director of Ethicon says, I 16 A. This is 2001. 17 BY MR. SNELL: Right. This is the 17 don't know if it is, maybe not, but it's not TVT. 18 same study, but it reported that the mean 18 Q. And you chose to go with the medical 19 19 follow-up of 56 months; right? director? 2.0 A. Correct. I don't know what -- I don't 20 A. No, I'm keeping an open mind. I have 21 see what the follow-up was on this one. Was it 21 to have data to show me clearly that this was. 22 22 Because from my perspective from what Arnaud said, the 5 year? 23 who should be the authority, this is a Mediscan 2.3 Q. It's right here. It's right here. 24 Yeah. Yeah. 24 product, and or possibly Bard mesh. So it raises 25 A. It's the 5 year. Approximately 5 year 25 a major problem for me. And I am not -- if you Page 179 Page 181 show me -- if you have data to prove it, I would 1 range. Yes. 1 2 Q. Right. 2 love to see it. 3 A. This is the 5-year study. 3 Q. You mentioned the \$400,000 that Q. You're familiar with this. They 4 4 Ulmsten received. Why does that matter to you? follow the series at 5 years, 7, 11, and 17 years; 5 5 A. Well, conflict of interest and bias, 6 correct? 6 unfortunately, exists in medicine. And that's why 7 7 A. Yes, sir. now we have to declare that. Originally we did 8 not have to declare it. During my residency you 8 Q. All right. And if you go to the 9 Patients and Methods section, in the left column 9 didn't have to do it. Early on in staff, you 10 it says, "The TVT set consisted of two 6 10 didn't have to do it. But because of events like millimeter needles connected to a handle and a 11 this, now you have to declare it. 11 12 specific polypropylene (Prolene) mesh tape fixed 12 So if there is money and you stand to to the needles." 13 13 make a lot of money, there's the potential for 14 Do you see that? 14 bias. I didn't say there is there. I said 15 A. Yes, I do. 15 there's a potential for it. There's clearly a conflict of interest, which Arnaud agreed with me 16 Q. So this paper reports that the mesh 16 they used in that Nilsson study was Prolene tape; 17 17 on that. He said there is conflict of interest in 18 18 this paper. So that is important. You have to 19 19 A. Even the medical director of Ethicon read this article through that lens of potential 20 20 needs to get updated on his data. I don't know bias. 21 why he would raise those issues then, because he 21 Q. And the same would hold true for all 22 was there during this time frame and involved, as 22 the Vypro and other studies you cited by 23 far as knowledge of these studies. So that would 23 Dr. Klinge who had a financial interest, correct,

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in promoting that product.

A. You --

24

25

have to be answered by him. But he said it under

oath. So all I'm doing is parroting back what I

24

25

Page 182 Page 184 1 MR. CARTMELL: Wait. Object to the 1 together. So that's not a fair comparison. The 2 form. It's vague and ambiguous with respect to 2 Burch can be done -- you can get it done in a 5, 3 3 what product you're talking about. 6, 7-centimeter incision. Outpatient, overnight 4 MR. SNELL: I said Vypro; didn't I? 4 stay in the hospital. So, no, I disagree with 5 5 Q. BY MR. SNELL: You know Dr. Klinge had that. There are studies out there showing longer 6 an interest in Vypro, don't you, Doctor? 6 stays. It's all over the board. 7 7 A. I do know that. Q. But you'd at least agree with the 8 8 Q. You know he's biased with regard to statement that the pubovaginal sling is effective 9 9 Vypro; don't you? but is known to have a high rate of complications, 10 10 A. No. There's a difference between require long hospital stays, and patients often 11 conflict of interest and bias. I am stating with 11 experience a significant amount of pain? Nilsson and Ulmsten there is a conflict of 12 12 MR. CARTMELL: Object to the form. 13 interest. There is the potential for bias. I 13 A. Again, we're looking at the 14 perioperative period. So I would agree with that, 14 didn't say there was bias. And as a reviewer, I 15 have to keep an open mind and look at that. I'm 15 but we have to always compare it to what. Are we 16 not denying at all with the Klinge, Klosterhalfen, 16 comparing it to TVT? Are we comparing it to the 17 whichever one -- I can't remember which one's 17 synthetics? Are we comparing it to the MMK or 18 which. But with Vypro, if there is a financial 18 just any transabdominal procedure? 19 19 Q BY MR. SNELL: You would agree with interest there, that is a potential for conflict 20 of interest. If there is a conflict of interest. 20 the statement that mid-urethral sling procedures 21 potential for bias. 21 are much less invasive than the earlier 22 22 Q. All right. And you know for a fact pubovaginal sling procedures; right? 23 that exists with Dr. Klinge? 23 A. Overall, when you're doing a 24 A. I don't know for a fact. I can't keep 24 comparison of synthetics to the pubovaginal or 25 track of who's got what where. But if you are 25 Burch, those are -- the Burch and pubovaginal Page 183 Page 185 stating for me that he has a financial interest in 1 slings are going to be relatively more invasive. 1 2 2 that, that does -- I have to be concerned about Q. Would you agree or disagree with the 3 that and look at it as objectively as I can. 3 statement that tension-free mid-urethral sling, 4 Q. And you cited to Dr. Klinge more than 4 like the TVT retropubic, is a significant 5 5 10 times in your expert report; right? advancement in treating stress urinary 6 A. Probably. And I also cite the Nilsson 6 incontinence? 7 7 and Ulmsten studies quite a bit in there, too. A. Oh, yes. And early on I was very --8 8 Those are all the body of evidence in the now, again, I never used the TVT because I was 9 methodology that I have to look at is look at the 9 described the various different fears of it. But 10 potential for bias in papers. 10 when TVT came out, it was revolutionary. It 11 Q. Tell me if you agree or disagree with 11 changed the way we did things. But we didn't know 12 these assertions. The Burch and MMK are very 12 what we know now. And even comparing myself to 13 13 invasive, often result in complications, and two or three years ago, my opinion has changed. 14 usually require prolonged hospital stays. 14 So, yeah, it was touted as being revolutionary. 15 A. A lot of factors. It would be easier 15 (Discussion off the record.) 16 if we go one by one or if you just want to -- if 16 (Exhibit 18 marked.) 17 you want to take the sentence in totality, it all 17 Q BY MR. SNELL: Doctor, I've given you 18 has to be true, I disagree with it. We can go bit the Cochrane Review. This is the publication in 18 19 19 by bit through it, though. 2011. 20 Q. You would agree that Burch and MMK 20 A. Correct. 21 21 both are very invasive? Q. You're familiar with this; correct? 22 A. I disagree. Compared to what? 22 A. Yes, I am. 23 Q. Compared to alternative surgeries for 23 O. And this was the Cochrane Review where 24 24 stress urinary incontinence. they did a comparative analysis of like the 25 A. No. Now, you've lumped MMK and Burch retropubic TVT versus the Burch or pubovaginal

47 (Pages 182 to 185)

Page 186 Page 188 1 slings; correct? 1 recall seeing another meta-analysis. And, again, 2 A. I see suburethral slings, open 2 then I'd have to look at how long the follow-up 3 is. Is it 12 months or is it 30 years. That's 3 retropubic colposuspension. I don't see pubovaginal in there. I'm not saying it isn't 4 what matters to me, end of the patient. 4 5 O. "Minimally invasive synthetic slings 5 there. I just don't see it. 6 Q. Well, here, let's -- let me just --6 appeared to be as effective as the open retropubic 7 we'll go through it quickly. In the Results 7 colposuspension." 8 8 section -- I'm on the very front. They say, A. Yeah. I don't see where you are. And 9 "Minimally invasive synthetic suburethral sling 9 I wouldn't challenge --Q. I wouldn't mislead you. I'm just 10 operations appeared to be as effective as 10 11 traditional suburethral slings"; correct? 11 reading --12 A. Correct. 12 A. No. I don't doubt. That's what we've been discussing all along. The Burch and the 13 Q. And when they talk about traditional 13 pubovaginal sling and the TVT have many studies suburethral slings, that would be like the 14 14 autologous pubovaginal sling; correct? 15 showing they have similar efficacy. 15 16 A. That's not nomenclature that's 16 Q. And here's what I want to ask you 17 normally used. It's not called a suburethral 17 about. sling. I would have to see what they're referring 18 But the TVT retropubic sling "has 18 fewer perioperative complications, less 19 to. It's called a pubovaginal sling. It's not --19 20 suburethral slings, normal nomenclature is the 20 postoperative voiding dysfunction, shorter 21 synthetics. 21 operative time and hospital stay, but significantly more bladder perforations." 22 22 Q. On the next page where they go through the different procedures, they put the -- what I A. Correct. And the key with that 23 23 read to be the pubovaginal slings and the 24 24 statement, as you read it, was perioperative. So 25 minimally invasive slings, like TVT, under the 25 that's immediate perioperative. And I'm not going Page 187 Page 189 category of suburethral slings. 1 to challenge. I think it's going to be somewhat 1 2 Do you see that? 2 of a relative issue. It's the long-term 3 A. Yeah. What they're doing is they're 3 complications that I'm most concerned about and comparing it to the colposuspension, which would 4 4 see on a daily basis in my clinic. 5 be probably supra urethral slings -- or 5 Q. So in the comparative studies for like 6 supra urethral suspension. That's probably what 6 comparing to the Burch, there are some 7 7 they're doing. perioperative complications that appear to be 8 higher with Burch as compared to the TVT; correct? 8 Q. Okay. But they found that "the 9 minimally invasive synthetic suburethral slings 9 A. Correct. 10 appeared to be as effective as the traditional 10 Q. Bladder perforation being the one suburethral slings, but with shorter operating 11 higher with the TVT because of the retropubic 11 12 time and less postoperative voiding dysfunction 12 passage; correct? and de novo urgency symptoms; correct? A. Correct. 13 13 14 A. Okay. That's what they state, yes. 14 Q. A little further down they say that 15 Q. And have you seen data consistent with 15 the "retropubic bottom-to-top route was more that conclusion by this Cochrane Review? 16 16 effective than the top-to-bottom route"; correct? A. I've seen data consistent with it and 17 17 A. That was their conclusion. It says inconsistent with it. So, again, I'd have to 18 effective in -- it doesn't say exactly here, but I 18 19 analyze each of the studies, what they're talking 19 assume they're talking about stress urinary 20 20 incontinence. That's what they state. about. 21 21 Q. Have you seen any other meta-analyses Q. That's consistent with the Ford paper 22 that report that for the TVT retropubic compared 22 you cited; right? 23 to pubovaginal slings, it has a higher rate of 23 A. Yes. 24 complications? 24 Q. And the approach used by TVT 25 A. Again, I'd have to see the -- I don't 25 retropubic "incurred significantly less voiding

Page 190 Page 192 1 dysfunction, bladder perforations, and tape 1 Let's see here. There's Kuhn, et al. 2 erosions"; correct? 2 Q. Let me see where you're at. 3 A. Which is a TVT paper. Let me see A. That's what they state, yes. 3 where Kuhn is referenced. I'd have to search for 4 Q. That's consistent with the Ford paper; 4 5 5 right? 6 A. I'd have to look back at that, but it 6 Q. Just so I'm on the same page as you, 7 sounds similar. 7 Doctor, I appreciate you telling me what page of 8 8 your report you're on where you discuss Q. "Monofilament tapes had significantly 9 higher objective cure rates compared to contraction with the TVT. I'm going to let you --9 10 multifilament tapes and fewer tape erosions." 10 let's take a quick break. 11 Do you see that? 11 (Recessed from 2:17 p.m. to A. Yes. 12 12 2:28 p.m.) 13 Q. And TVT is a monofilament tape; 13 Q BY MR. SNELL: All right. Okay, correct? Doctor, before we took a break, I asked you to 14 14 15 show me in your expert report where you discuss 15 A. Correct. 16 Q. And that's a benefit of monofilament 16 contraction rates with regard to the TVT device 17 tapes over multifilament tapes, where they have 17 and its use in women for stress urinary 18 fewer erosions; correct? 18 incontinence. 19 A. Yeah. The multifilament is going to 19 Can you point me to that? be a worse product. Doesn't mean monofilament is 20 20 A. Well, in the Contraction section, 21 safe. It just says is safer relative to the worst 21 obviously we do a lot of discussion about 22 product. Worse --22 contraction, various different studies with it. Q. And the -- I'm sorry. You're going --When we limit it specifically to TVT, I think we 23 23 have to look at Wang, et al., on page 24, where 24 A. No, no, no, no. 24 25 Q. And the monofilament tape had a rate 25 we're talking about infections, erosions and Page 191 Page 193 of erosion of 1.3 percent; correct? exposures, because the complication of contraction 1 2 A. Based upon their analysis here in the 2 is intimately tied to also exposures and 3 hands of experts and short-term follow-up, yes, 3 infections. 4 that's the number they found. 4 Q. So TVT and contraction -- strike that. 5 Q. Were you aware of this Ogah/Cochrane 5 So for TVT contraction in women, you point me to Wang on page 24? 6 Review at the time you wrote your draft -- your 6 7 expert report? 7 A. That's when you specifically limit it 8 A. I don't recall when I became aware of 8 just to the TVT product. 9 it. It's a -- it's a well-known paper. 9 Q. Right. 10 Q. In looking at your report, I did not 10 A. Because as I mentioned, all see you citing to any TVT retropubic device 11 11 complications are all intertwined. So exposure, 12 literature where the device had been used to treat 12 infection is intertwined with inflammation, 13 stress urinary incontinence in women and where it contraction, degradation, et cetera. 13 14 was reported that there was contraction. 14 Q. And the other part of your report 15 Is that a fair statement with regard 15 where you talk about contraction, you talk about to your report? Klinge and his discussion of hernia mesh 16 16 17 contraction; right? 17 A. No. That would be incorrect. Q. Where in your report do you report 18 A. That is correct, because that is a TVT 18 19 studies in TVT in women that reports contractions? 19 mesh implanted via the abdominal route. 20 A. Well, wherever there is pain, wherever 20 Q. All right. It's not cut to and 21 there is extrusion, that is evidence of 21 configured as TVT is; correct? 22 22 A. No. But without -- no, you are contraction. 23 Where in your report do you report 23 correct. However, the TVT mesh has different O. 24 24 forces placed upon it that the hernia meshes do that? 25 Well, if we go to pain or dyspareunia. 25 not, i.e., you can make hernia meshes lay flat.

49 (Pages 190 to 193)

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1 You can't do that with the vagina.

2.0

- Q. The hernia mesh does not have a sheath on it; correct?
 - A. No. It does not, but it's also not placed in the vagina to have bacterial contamination.
- Q. When you say bacterial contamination, you're not referring to infection; are you?
- A. I'm referring to bacterial contamination.
- Q. Right. There is a difference between bacterial contamination and infection; correct?
- A. Yes, but infection starts with a contamination.
- Q. Right. You're aware of the paper by Pat Culligan where they found and they quantified the different bacteria counts in the vagina?
- 18 A. Correct.
 - Q. In that study there were patients who received the TVT as well; correct?
- A. I'd have to look at it. I don't recall the specifics.
- Q. Would it surprise you to learn that there were no infections with the TVT mesh in the Culligan paper.

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MR. CARTMELL: Object to the form.

- A. I would have to look at the methodology, because methodology is very important. I'd have to look at how they did the study and what they looked at.
- Q BY MR. SNELL: Have you looked at that?
- A. Yes, I have, but I don't have it off the top of my head.
- Q. Is it your opinion that whenever mesh is placed through the vagina there is bacteria that gets on it?
- A. We know that the vagina's impossible to sterilize, and so when you place it through the vagina, you are going to have contact with that. So it's even with the sheath on it, but then when you remove the sheath, there's going to be issues there. So the risk for contamination on every single one is definitely there.
- Q. But that does not translate into infection?
- A. It might not translate into a clinical infection/abscess, but it can correlate to a subclinical infection, leading to inflammation, degradation, and that cascade.

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- Q. And you have not stated in your report the rate at which clinical infections occur with TVT; have you?
- A. I don't recall that specific, but the way you phrase it, specifically mentioned in there.
 - Q. I have not seen in your expert report where you calculate and state the complication rates with the TVT retropubic device.
 - A. Because we don't know the true complication rate. We can quote studies, as I mentioned, in high volume surgeons with limited follow-up. We can quote those. But as I said, we don't know the true complication rate.
 - Q. Well, there are meta-analyses, and we've gone through a couple of them today and various other studies that report rates of complications, and you're aware of that; correct?
 - A. Yes. But that does not reflect what is happening out in the real world and what I see in my daily practice. That the average low-volume surgeon, who does the majority of the TVTs in the United States, that's what -- you know, because Arnaud even admitted, their complication rates are even going to be higher. So, yes, we can quote

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- extensively the studies that you've done that show these various different complication rates with short-term follow-up and highly experienced surgeons.
- Q. In the studies that report on the TVT retropubic device, what percentage of those studies involved surgeons who were of average quality?
- A. Well, I can't speak to quality. All we can speak to is volume.
- Q. How many of those then had average volume for the TVT retropubic studies?
- A. Most likely very few of those had small volume. And the Kuuva study, they eliminated the lower volume studies -- lower volume people. So they falsely raised their success rate and lowered their complication rate. But, no, small volume surgeons aren't going to publish anything because they're small volume.

MR. SNELL: Move to strike.

Q. BY MR. SNELL: Do you know of all the TVT retropubic device studies which percent of them included surgeons that had average volume or less?

MR. CARTMELL: Object to the form.

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Asked and answered. He said a very small
 percentage of those. He answered your question.

3 He also said other information, but he

specifically answered your question. So pleasemove on.

Q BY MR. SNELL: Is that correct; you believe it's a very small number?

A. Average or low-volume surgeons aren't going to have their data included because they don't have enough data to analyze.

The only way I can answer your question is Kuuva, et al., where they actually eliminated the small volume surgeons who had done less than 15.

Q. I'm familiar with the Kuuva paper. I'm talking about the hundreds of other TVT retropubic papers. In those, is it correct that you don't know what percent of those papers reported on surgeons who had average to low volume?

MR. CARTMELL: Objection. Asked and answered. You can tell him again.

A. As I stated, my opinion is it's going to be a very, very small number of small volume surgeons are going to be included in those Page 200

analysis by which you segregated the investigators who had low to average surgical volume as compared to more than that?

A. I have reviewed the literature extensively. Can I quote to a certain specific paper? No. If you have one, show me, and I'll keep an open mind and modify my statement. But this is based upon experience. Again, national, international meetings. Editor -- or reviewer of 15 different journals. And I'm reading these papers constantly. And you're not seeing low-volume surgeons produce papers. The only one that comes close to it is Anger, et al., which demonstrated that low-volume surgeons had higher complication rates.

Q. Do you believe lower-volume surgeons with other stress incontinence surgeries, like the Burch or pubovaginal slings, have higher complication rates?

A. I would think that would be true. And those surgeons usually don't do those surgeries because they are more complicated surgeries to perform. It takes more talent to do. So most of those surgeons don't do it. That was the revolutionary aspect of TVT because it opened up

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studies, if any, because you don't write up a paper if you've done 10. No one's going to get accepted.

Q BY MR. SNELL: Well, you wrote up a paper where you did 10 transobturator procedures?

A. Absolutely I did, and that was called a feasibility study. In properly counseled patients. I am not out there touting that that is the new gold standard. That's why we called it a feasibility study.

Q. Other than the Kuuva paper, what are you relying on for that statement that it would be a very, very small number?

A. Based upon my experience and attendance at national and international meetings, working at a tertiary care center, working on the journal articles from 15 different journals, that small volume surgeons don't write papers because there's nothing there to publish. So, therefore, my experience is, and I'll state unequivocally, very, very small percentage. If you want a number, 1 to 2 percent, if that. And they're not going to get published anywhere.

Q. Have you surveyed the literature for all the TVT retropubic device studies and done an

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1 minimal -- it opened up stress incontinence2 surgery to the common surgeon.

Q. Is the common surgeon unqualified in your opinion to do TVTs?

A. The common surgeon needs to -- no, the common surgeon -- let's be careful on the word "common." I'm saying the average, private practice surgeon, who is doing less than 15 or so a year, based upon the Kuuva study, et al., is going to be having a higher complication rate. Most of these studies also demonstrate in highly experienced hands.

So I'm saying as far as the common, the average surgeon out there, they are not going to have the expertise of the high-volume surgeons; hence, complications go up.

Q. Do you believe that surgeons in private practice have less surgical skills than surgeons in universities?

A. Absolutely not. It just depends upon their experience. There are some that I know in private practice who do very high volumes. It's not an issue of the specific individual. It's an issue of their volumes. And you know if you look at the Nilsson study, Nilsson is a five-year

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study. That was -- five-year study? Yeah. It's a five-year study.

See, they very clearly -- all surgeons involved were experienced urogynecologists well trained in TVT surgery. That's not going to be your average surgeon. That's are highly qualified people.

- Q. How many average pelvic surgeons in the United States use TVT?
- A. I can't answer that question. I don't know the -- a way of referencing it. We'd have to look at ethical sales and where they go to and the volumes that move off the shelf. That data would be available.
 - Q. Have you analyzed that data?
- 16 A. That data's been tried to get and 17 can't.
 - Q. How many high-volume surgeons are there in the United States for TVT retropubic device as you define high volume?
- A. There's going to be a certain number.

 But I don't know what that number would be.

 Around the nation there's going to be people that are going to be very good surgeons.
 - Q. Are residents -- do residents

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typically have higher complication rates than the, you know, professors or the surgeons who teach them?

A. It depends. If the resident is running solo and doing a case without any supervision, that possibly could be the case. However, if they have been well trained in a certain procedure and they're doing it solo and they've done more than anybody else -- they've done an acceptable number, their complications are going to be low. There's too many variables to be able to answer that question.

Q. If a surgeon is a -- strike that.

If a surgeon is more than an average surgeon, as you've stated, and he or she uses TVT retropubic device, based upon the data, you would agree then that the rate of complications are acceptable in his or her hands?

A. Number one, acceptable, no. Number two, it depends upon what -- how much follow-up they have. And it's true, a surgeon can put in the device and at one year that woman has not experienced any complications yet. But that device is going to stay in her the rest of her life. That's why I'm saying all these studies are

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1 insufficient.

Q. Have you analyzed the studies overall that show that the majority of complications do occur in the first 12 months?

MR. CARTMELL: Object to the form. I think it misstates the evidence in the studies.

- A. Yeah. And it's also -- the complications they know of at that point. Because I can give you examples of bladder erosions that I've taken care of that I put in the sling that at 7 years they're fine. At year 8 there's an erosion, which we've examined. So we have to look at the life of the patient.
- Q BY MR. SNELL: In the studies that report on TVT retropubic at five years duration or more, what is the rate of mesh exposure occurring after five years.
- 18 A. It's unknown.
- Q. You mentioned the Wang paper. Let mejust make sure I have it here. I think I do.

(Exhibit 19 marked.)

- Q. BY MR. SNELL: Is this the Wang paper you referenced, Doctor, with regard to TVT?
- A. Correct. 2004 publication, yes.
- Q. And that paper says on the first page

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1 "Prolene tape seems unusually biocompatible when2 used as a suburethral sling"; correct?

It's all on the very first page.

- A. I'm sorry. Where are you?
- 5 Q. Very first page. Right here.
 - A. That's what it states, yes.
- Q. And so this paper by Wang is actually
 inconsistent with your belief that Prolene strike that.

Do you believe Prolene mesh is not biocompatible?

- 12 A. I do not believe it is biocompatible, 13 no.
 - Q. In what percentage of patients is Prolene tape -- strike that.

In what percentage of patients is the Prolene mesh used in TVT for the treatment of incontinence not biocompatible?

- A. That's impossible to know because there's been no good studies looking long-term at them.
- Q. Well, in this paper, out of 700 women that you reference, the rate of exposure was 2.4 percent; correct?

MR. CARTMELL: Object to the form.

Page 206 Page 208 complained of pain, 4 complained of dyspareunia, 5 1 A. Correct. During the time period of 1 2 this study, of 7 -- I don't see what the follow-up 2 complained of vaginal bleeding and irritated 3 3 voiding. And so to break it down into specific is. 4 MR. CARTMELL: I think that misstates 4 little complications is disingenuous at best. But 5 going to that, yeah, 4 out of 700 complained 5 the evidence. The question assumes facts that are 6 6 specifically of dyspareunia during this short not in evidence. 7 7 A. The paper, at least in the abstract, period of time, short period of follow-up. 8 8 Q. And that's less than 1 percent; right? does not state the follow-up time. But this paper A. It's whatever the math is. Again, I 9 states defective vaginal healing that became 9 clinically significant was 2.4 percent during the 10 10 don't -- I can trust you on the math, I think. 11 study period. But, again, I'm trying to find 11 Q. 5 out of 700's less than 1 percent; the -- this is at 1 to 3 months. Defective 12 12 correct? 13 healing from 1 to 3 months, it looks like. So 13 MR. CARTMELL: He's answered you. it's a very short-term study. 14 14 Asked and answered. 15 Q BY MR. SNELL: Well, they actually 15 Q. BY MR. SNELL: I'm talking about the looked at a longer time period than 3 months in pain rate now. Not dyspareunia. 16 16 17 this paper; right? It's just that the healing 17 A. Pain? Well, pain -- if you want pain, it's going to be different. So it's going to be 18 problems arose before three months; correct? 18 9. Pain is roughly a 2 percent incidence of pain A. The acute healing problems arose 19 19 at that point in time. 2.0 during that time, yes. 20 21 Q. And so that means that 97.6 percent of 21 Q. Where do you get 2 percent? A. We have five women complained of pain. 22 the women did not have vaginal healing problems; 22 Four women complained of dyspareunia. Five women 2.3 right? 23 24 A. At the time the study was conducted. 24 complained of vaginal bleeding and irritated 25 Q. Fair enough. 25 voiding. Page 207 Page 209 1 Q. Doesn't say those five complained of 1 And you see there were four women what 2 complained of dyspareunia? I'm right here in the 2 pain. 3 Results section. 3 A. No, they didn't. But they complained -- they complained of something else. 4 A. Five complained of pain and four 4 So, again, what is always -- I'll let you have 5 complained of dyspareunia by themselves or their 5 6 6 this, but as a doctor that takes care of patients 7 Q. And so four women complained of 7 who are crying in my office, you guys break down dyspareunia by themselves or their partner or 8 the complications. Yeah. So, yes. 9 patients in 8 9 partner discomfort; right? 9 this series out of 700 complained of pain. The 10 A. Yes. So nine patients overall 10 other ones weren't happy with vaginal bleeding, complained of pain. irritated voiding. 11 11 12 Q. All right. 12 Q. That was five who weren't happy with vaginal bleeding or irritated voiding; correct? 13 A. Four complained of dyspareunia. 13 14 Q. And as for dyspareunia, that rate is 14 A. Correct. 0.57 percent; correct? This paper you point to. Q. And they ended up, 7 patients in this 15 15 A. A -- well, it's 4 out of 700 patients 16 16 series that you point to required excision of the at that short-term follow-up. That's how many exposed suburethral part of the sling; is that 17 17 correct? 18 complained of dyspareunia. 18 Q. And does it sound about right that 19 19 A. That's correct. Q. So that was an excision rate of only 20 that rate is 0.57 percent. 20 21 A. I would have to do the math on it. 21 1 percent in this entire cohort; right? I'll have to take your word for that. A. During the very limited follow-up 22 22

53 (Pages 206 to 209)

duration of this study, that is the number they

Q. When you say limited follow-up

23

24

25

came up with.

Q. Well, 4 is certainly -- 4 women out of

A. Well, if you look at this, 5 women

700 is certainly less than 1 percent; right?

23

24

25

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Page 210
                                                                                                    Page 212
 1
      duration, why do you say that?
                                                           1
                                                                       MR. SNELL: You're not testifying,
 2
          A. What's going to happen in 5 years? 10
                                                           2
                                                                Tom, please.
 3
                                                           3
                                                                       MR. CARTMELL: -- there's 7 erosions
      years? 20 years?
 4
          Q. How about this? Why don't we look a
                                                           4
                                                                when there's 17 erosions. In fairness.
                                                           5
      little bit further below that. You see the mean
 5
                                                                       MR. SNELL: You know what. You're
 6
      follow-up of 68.2 months?
                                                           6
                                                                totally off base.
                                                           7
 7
          A. Okay. What about 69 months -- I'm
                                                                       MR. CARTMELL: I am?
                                                           8
 8
      sorry.
                                                                       MR. SNELL: Yes.
 9
          Q. That's over five years, isn't it,
                                                           9
                                                                       MR. CARTMELL: Tell me how.
                                                         10
10
      Doctor?
                                                                       MR. SNELL: On your time I was asking
11
          A. And as I have mentioned over and over
                                                         11
                                                                him about erosions that needed surgical -- where's
12
      and over, this is an implantable medical device,
                                                         12
                                                                the paper? We just went through this, didn't we,
13
      as you mentioned. There are studies out there.
                                                         13
                                                                Doctor.
                                                         14
                                                                       MR. CARTMELL: 17 erosions. 17
14
      Klinge, 15 years, degradation continues. This is
15
      a progressive process. I see these patients in my
                                                         15
                                                                erosions, it says right here.
16
      clinic that aren't being followed by anybody. So
                                                         16
                                                                       MR. SNELL: Tom, you're being
17
      I'm saying 5 years, that's a step in the right
                                                         17
                                                                nonsensical. I asked him about the ones that
18
      direction. But if a woman lives 30 years beyond
                                                         18
                                                                required excision.
19
                                                         19
      that, what's going to happen in that time frame?
                                                                       MR. CARTMELL: No, you didn't. You
2.0
      Our data suggests it's going to get worse.
                                                          20
                                                                said erosions in general, and the record will
21
             MR. SNELL: Move to strike.
                                                          21
22
          Q. BY MR. SNELL: In this paper you point
                                                          22
                                                                    Q. BY MR. SNELL: Sir, don't you remember
2.3
      to -- you pointed me to, at over 5 years
                                                          23
                                                                me asking you about 7 of those patients required
24
      follow-up, there was only 1 percent rate of mesh
                                                          24
                                                                excision of the exposed suburethral part of the
25
      excision to treat the exposure; right?
                                                          25
                                                                sling? Didn't I ask you about that?
                                          Page 211
                                                                                                    Page 213
          A. That is what the study stated at five
                                                           1
                                                                    A. You asked me a question. I can't
 1
 2
      years, yes.
                                                           2
                                                                remember the specific details of it.
 3
          Q. So that means at a mean follow-up
                                                           3
                                                                    Q BY MR. SNELL: But it says seven
 4
      greater than 5 years, 99 percent of the women in
                                                           4
                                                                required excision of the exposed suburethral part
                                                           5
 5
      this entire large cohort didn't need a mesh
                                                                of the sling; right?
                                                                    A. That's what that says there, and the
 6
      excision procedure; correct?
                                                           6
 7
          A. The key is yet.
                                                           7
                                                                other part says 17 out of 100 had defective
          Q. And there are other studies that
                                                           8
 8
                                                                vaginal healing.
 9
                                                           9
                                                                    Q. And it gives the measurement, CA 1
      report --
10
             MR. CARTMELL: Just for the record, I
                                                         10
                                                                times 0.5 centimeters; correct?
                                                                       MR. CARTMELL: Okay. Now, it's all on
11
      want it to be clear, because I think it's unfair
                                                         11
12
      to the witness that you've been representing that
                                                         12
                                                                the record. Now it's fair.
13
      there was a small number of erosions. And I think
                                                         13
                                                                       MR. SNELL: It was fair before. He
14
      there were 17 erosions in the cohort. And I want
                                                                cited to the document. He knows the study.
                                                         14
15
      the record to be clear for that.
                                                         15
                                                                         (Exhibit 20 marked.)
16
             MR. SNELL: I think -- the study says
                                                         16
                                                                    Q BY MR. SNELL: Giving you one of the
17
      what it says, so I can't --
                                                         17
                                                                publications by Klinge, Alloplastic Implants for
             MR. CARTMELL: Yeah, but you're just
                                                                the Treatment of Stress Urinary Incontinence and
18
                                                         18
                                                         19
19
      kind of trying to trick him, you know, because
                                                                Pelvic Organ Prolapse.
      you --
20
                                                         20
                                                                       You see this?
21
             MR. SNELL: I'm not tricking him. He
                                                          21
                                                                    A. Yes, I do.
      pointed to this study, Tom. He knows this study.
                                                         22
                                                                    Q. Whereas you cited to Klinge about
22
23
      Don't try to tell me I'm tricking a witness about
                                                          23
                                                                hernia and other papers, you didn't cite to his
24
      a paper he told me -- he's pointing me to.
                                                          24
                                                                discussion of the TVT mesh; did you?
25
             MR. CARTMELL: So don't say --
                                                          25
                                                                    A. I don't recall that specifically.
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54 (Pages 210 to 213)

Page 214 Page 216 1 Q. Look for where Klinge was writing 1 referencing to the Meschia study. 2 about meshes in stress urinary incontinence. 2 Q. And you know that that's a study that 3 3 looks at the Ethicon TVT retropubic device? You there? 4 A. Yes. I mean, I'm sorry. I'm at the 4 A. I'd have to look back at the study. I 5 Meshes and Stress Urinary Incontinence. I'm there 5 don't remember the study. 6 6 Q. Okay. So at least in the context of 7 7 Q. All right. And you saw Dr. Klinge was the intended use to treat stress urinary 8 8 one of the authors of this section; right? incontinence with regard to the TVT device, he 9 A. Correct. 9 reports that tape is a type 1 macroporous tape? 10 Q. And it says, "At present the gold 10 A. That's what he reports in 2010. 11 standard in SUI surgery is the suburethral sling 11 Q. Right. using either the tension-free vaginal tape (TVT) 12 12 A. Which then reflects data from 2008. 13 or the transobturator tape (TOT) technique"; 13 And that's what he states. 14 correct? 14 I disagree with it. Be interesting to 15 A. That's what he states, yes. 15 what he says now. 16 Q. And do you disagree with Dr. Klinge? 16 Q. Now that he's been paid hundreds of 17 A. I disagree. 17 thousands of dollars by the plaintiffs' lawyers in the mesh litigation? 18 Q. It said, the initial concern that the 18 19 19 meshes used might lead to high rates of erosions, MR. CARTMELL: Object to the form. 20 did not hold true when macroporous polypropylene 20 It's argumentative. Be distracting. 21 was used; correct? 21 A. If you want to go on the record that 22 22 A. That's what it states, yes. he's being biased. Q BY MR. SNELL: Do you know how many 23 Q. And here when Dr. Klinge is talking 23 24 about macroporous polypropylene in the context of 24 royalties he -- Dr. Klinge received on Vypro? 25 stress urinary incontinence, he's talking about 25 A. I'm not familiar with that number Page 215 Page 217 because I'm doing involvement of TVT case, not 1 the mesh in TVT; correct? 1 2 MR. CARTMELL: Object to the form. 2 Vypro. 3 A. No. He doesn't state which he's 3 Q. Do you know how many royalties 4 talking -- referring to. The sentence prior, it 4 Dr. Klinge has received for ULTRAPRO? 5 5 says TVT or transobturator tape. There's a lot of A. The same answer as before, because I different ones out there. And then he says, "The 6 6 know what data I've been provided on TVT. I have 7 7 initial concern that meshes." He does not say not been provided confidential data on Vypro or 8 8 TVT. So all he's saying is meshes. the other ones. Q. And you don't disagree that when Amid 9 Q BY MR. SNELL: Well, you see below 9 10 that, right, where he talks about -- he follows up 10 type 3 mesh, used for intravaginal slingplasty, 11 11 the vaginal erosion rate was 9 percent, and the on his point. He says, "There was a zero percent 12 12 rate was 0 percent with TVT? 13 13 exposure rate using the classical TVT (Type 1 MR. CARTMELL: Object to the form. 14 macroporous monofilament polypropylene) mesh in 14 A. I agree with the first part. I don't 15 the same trial": correct? 15 agree with the second part. 16 A. Well, that's in the second -- in the 16 The Amid type 3 like the ObTape, which 17 next paragraph down. I'm talking about the 17 I'm very familiar with, had an unacceptably significant complication rate with it. 18 sentence you showed me. Initial concern that 18 19 19 meshes. So it doesn't say TVT. We can agree it Q BY MR. SNELL: And you didn't cite to says meshes, and I'll agree that's what it states, 20 20 this writing by Klinge in your expert report; did 21 21 but he doesn't say TVT. 22 Q. We can agree that he says the 22 A. I cited Klinge multiple times. I 23 classical TVT (type 1 macroporous monofilament 23 don't know if this specific -- this is a book chapter. I quoted this one. Book chapters I tend 24 24 polypropylene) mesh; right? 25 A. That's what he's saying when he's 25 not to quote.

Page 218 Page 220 1 Q. Well, this is one place in the medical 1 know? 2 literature where Dr. Klinge discussed his views on 2 MR. SNELL: So the question is would 3 what type of mesh TVT mesh was in the application 3 you -- well, I take it he's read Dr. Klinge's 4 of treating stress urinary incontinence and 4 writings. He's seen Dr. Klinge's statements. 5 5 MR. CARTMELL: What writings are you whether or not it was the gold standard. 6 Have you seen that published anywhere 6 asking him about? If you have writings about 7 7 DynaMesh that you want to ask him about, put them else? 8 8 in front of him. Why all the questions about MR. CARTMELL: Objection. Q BY MR. SNELL: By Dr. Klinge. 9 9 studies and things that you don't even let him 10 MR. CARTMELL: Objection. And move to 10 look at. 11 strike this statement of counsel. 11 MR. SNELL: He can look at anything he 12 A. And I agree with you completely, and 12 wants. 13 that should tell you something about Klinge's 13 MR. CARTMELL: Then put it in front of expertise, as far as a stress urinary incontinence 14 14 him. surgeon, which he is not. He's a mesh expert. 15 15 MR. SNELL: It's not my job to put it 16 But he's not a transvaginal surgeon. He's never 16 in front of him. It's the job of your witness to 17 been involved in one of these cases. So you 17 bring his file. Secondly, he cites to Klinge 18 search around and find one reference where he's 18 about 100 times in the report, and not once does 19 19 he acknowledge any of this. quoting something in the book, okay, that's what 20 it is. 20 MR. CARTMELL: If you're going to ask 21 Q BY MR. SNELL: He doesn't just quote 21 him about a study specifically on it that's on his 22 22 something in a book. He's actually citing data, reliance list, then bring it with you and ask him randomized trial data on TVT versus an alternative 23 23 questions and let him look at it so it can be 24 mesh; doesn't he? 24 fair. How about that? How about that? 25 A. I'm saying he is not a surgeon. He's 25 MR. SNELL: He could bring his own Page 219 Page 221 not providing expertise as a pelvic surgeon like I file. How about that? That was asked and 2 am. He's a mesh expert, a very good one, but he 2 requested of him, Tom. 3 is not a pelvic surgeon. 3 MR. CARTMELL: You have everything he Q. Do you know how many royalties 4 4 has reviewed. 5 Dr. Klinge gets with regard to his work with the 5 MR. SNELL: Tom, my experts bring 6 German DynaMesh mesh? 6 their file to the depositions. 7 7 A. I have not heard a number, no. MR. CARTMELL: Wrong. 8 8 MR. SNELL: You remember when you Q. You know he does get money from that 9 mesh; right? 9 deposed Denise Selzer she showed up with nine 10 A. I just said I don't know. I don't 10 boxes of stuff. 11 know. I'm not a faithful apostle of Dr. Klinge. 11 MR. CARTMELL: Denise Selzer did. 12 I don't know what he does. 12 MR. SNELL: Christina Pramudji showed 13 13 up with boxes and boxes and boxes of stuff. Q. Do you acknowledge he's got a 14 conflict --14 MR. CARTMELL: Not when I deposed her. 15 MR. CARTMELL: All you got to do is 15 MR. SNELL: Get for real. You know 16 answer do you know or not. 16 she did. Crazy. 17 17 A. I do not know. A. But to address your question, as far 18 BY MR. SNELL: You know that he has a 18 as conflict of interest, if he truly does have 19 conflict of interest when it comes to DynaMesh; 19 conflict of interest and bias, then based upon 20 20 this here he's coming out in support of TVT. So I don't you? 21 21 MR. CARTMELL: What it comes to what? see a fault in your logic. 22 MR. SNELL: DynaMesh, D-y-n-a-M-e-s-h. 22 Q BY MR. SNELL: I don't have a logic. 23 It's a mesh that's not even available here in the 23 I'm asking you a question. 24 24 A. Well, I know you don't have a logic United States. 25 MR. CARTMELL: So then why would he 25 and that's what I've been pointing out.

56 (Pages 218 to 221)

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- Q. My question is: You were aware of these writings by Klinge with regard to TVT and that mesh and the specific intended use of stress urinary incontinence before you wrote your report; right?
 - A. I'm aware of this reference.
 - Q. Yes. You were --

- A. The one that I'm holding, Exhibit 20. I don't recall if I've ever been aware of this.
- Q. The plaintiffs' lawyers never gave that to you?
 - A. I don't recall if they have. I have thousands of pages they've sent me. It may have been in there somewhere. I have not seen this. Again, if he were a pelvic surgeon, I would be putting weight into his comments on gold standard and things. But all he's doing is parroting what he's read somewhere else. So, again, it is what it is.
 - Q. Can you point me to any other publications by Klinge where he assesses the TVT retropubic device in the application of stress incontinence and discusses the clinical studies on that device like he did in that paper I just showed you, Exhibit 20?

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MR. CARTMELL: Object to the form. It misstates the actual paper.

- A. He has studied extensively hernia meshes. TVT is a hernia mesh. But to put all the dots together as you very narrowed it down to, the answer to that is no, not that I am aware of.
- Q BY MR. SNELL: My focus is the intended application of the treatment of stress incontinence and those studies alone.

You haven't seen that paper or those papers?

- A. As you word it there, I have not seen that. The intended application of the TVT mesh was actually for hernias. Not for female stress incontinence. So, again, he has studied the intended purpose of that mesh. He has not studied it when it's been put into the vagina.
- Q. For the TVT device, that's what I'm referring to for its intended -- you've acknowledged that the TVT retropubic device is intended to treat stress urinary incontinence; right?
- A. The device is, but the mesh intended use was for hernias, which was then extended to the application of stress urinary incontinence.

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So, again, I'm agreeing with you and disagreeing with you at the same time. Not to be difficult.

MR. SNELL: Okay. Let's take a quick break so I can get organized.

(Recessed from 3:05 p.m. to 3:07 p.m.)

Q BY MR. SNELL: I want to ask you about your opinions about the mechanical cut of the TVT retropubic device.

You've mechanically cut mesh before?

- 11 A. Just the sacrocolpopexy mesh. Not 12 sling mesh.
 - Q. And did it ever concern you when you were cutting sacrocolpopexy mesh mechanically?
- 15 A. It didn't. And now it does.
 - Q. Do you still cut sacrocolpopexy mesh?
- A. No. We modified -- well, we're in the process of modifying it to using Restoril, which will not hopefully have that problem. It's already hemmed. And that is a concern of mine which I now counsel my patients on.

 O. And is it fair to say that you believe
 - Q. And is it fair to say that you believe the laser cut TVT mesh is defective?
 - A. I think it's treated one -- to specifically answer your question, yes.

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Q. I didn't see in your expert report where you cite to any TVT studies with regard to clinical complications occurring at a statistically higher rate with mechanical cut TVT mesh as compared to laser cut TVT mesh.

Is that a fair summary of your report?

- A. You are correct. I have not heard of a study with that. However, I'm basing that on Nilsson's comment of a four-time -- four times increased risk of vaginal extrusion with a laser cut
- Q. What comment is this by Nilsson? I'm sorry.
- A. That was in one of the documents I read. I don't know where I read it, but it's in the document.
- Q. What methodology did you use to select that one quote by Nilsson?
- A. Because he is arguably one of the world's experts on it. And so I value his opinion on this.
- Q. Do you also value his statement in the company documents that he will not use laser cut mesh; that he only uses mechanical cut mesh?

A. Absolutely. That's supporting what I

Page 226 Page 228 1 just said. 1 ever read on TVT. If you have something 2 Q. So you're aware that Nilsson only --2 different, then I'll keep an open mind. I have 3 3 yet to see any paper describe we're using in the company documents, reports that he will 4 only use mechanical cut mesh? 4 mechanically cut or we're using laser cut. So I 5 5 A. That's -- I don't know what his recent can't base it upon that. 6 statements are, but that the document that I read, 6 Q. Okay. So when I was asking about what 7 7 which that source can be found, he said he would papers you were talking about, I thought you were 8 8 talking about Ethicon company documents and not not use the laser cut because of the four times 9 9 increased risk of vaginal extrusion, and he would medical literature. 10 10 only use the mechanical. Then I read the other A. No. That was one of them. The 11 individuals stating the exact opposite. So I get 11 internal documentation -- I'll just be clear. 12 12 conflicting evidence. I have not seen, to the As I stated in the previous answer, 13 best of my knowledge and it may be out there 13 internal Ethicon documentations, medical 14 14 somewhere, a study, comparative, randomized literature, the emails back and forth, and then my 15 clinical study of the two. I've not seen it. 15 clinical experience. That's how I came by it. 16 Q. Are you aware of any TVT retropubic 16 I am not here today to say that laser 17 clinical data that reports that there's a higher 17 cut is better or worse. They're both bad in my 18 rate of complications with mechanically cut mesh 18 opinion. 19 19 compared to laser cut mesh? Q. So with regard to your selection of 2.0 A. I don't think overall there's going to 20 which company documents to put in your expert 21 be a higher risk from one or the other. They're 21 report on this mechanical cut issue, what was your 22 22 both bad and both have their set of complications. methodology in selecting those particular company So you're trading one set of problems for another 23 2.3 documents? 24 set of problems. 24 A. My methodology of what I reviewed is 25 Q. What studies are you specifically 25 very simple. Every document that I was provided Page 227 Page 229 relying upon for your opinion with regard to the with internal documentation from Ethicon I 2 mechanical cut TVT retropubic mesh, if any? 2 reviewed. 3 A. Well, that's what I'm talking about. 3 Q. So you were provided those by the 4 plaintiffs' lawyers? The methodology that I have used with this, 4 5 5 concerning specifically mechanically cut, is A. Correct. 6 obviously the internal documentation, with 6 Q. My question to you is this: Let's 7 complaints coming in about the fraying, roping, 7 focus on your methodology for which ones you 8 8 particle loss, the inflammation. Reviewing of the decided to cite in your expert report as support 9 papers talking about various different 9 for your points. 10 complications. My clinical experience dealing 10 What was the methodology in that? 11 with patients. Last week alone, there's one 11 A. You have to -- you have to analyze --12 patient. Week before that, three, which were all 12 MR. CARTMELL: Well, just for 13 TVT patients. Where that I see this mechanically clarification, you mean because they're all cited 13 14 cut mesh. Then my discussion with colleagues at 14 in his report. 15 international and national meetings. So all that 15 MR. SNELL: No, they're not. MR. CARTMELL: There's a reliance 16 is going into it. 16 17 17 Q. You said the papers. You reference list. 18 papers. Are you talking about Ethicon documents? MR. SNELL: There's a reliance list, 18 19 A. Correct. Well, I mean the medical 19 but he cited certain things. 20 20 MR. CARTMELL: Okay. So you're 21 distinguishing between what's in a footnote versus Q. That's what I'm asking. What medical 21 22 literature on TVT reports complications 22 what's in the reliance list that's attached. 23 attributed -- attributed to the mechanical cut 23 MR. SNELL: Of course, because, I'm

58 (Pages 226 to 229)

sure, everything in the reliance list doesn't

support the things he says.

24

25

24

25

nature of the mesh?

A. The defect in -- and every paper I've

Page 230 Page 232 1 MR. CARTMELL: Well, everything on his 1 be your methodology for excluding it or not 2 reliance list is information he used in forming 2 referencing it in your report? 3 3 his opinions and relies on. MR. CARTMELL: It was on his reliance 4 MR. SNELL: You're speaking -- you're 4 list. 5 5 doing a speaking objection. A. Yeah. To a certain extent, surgeon 6 MR. CARTMELL: Well, I'm responding to 6 preference is important, and then also not 7 your statement you just made. You're talking 7 important. So certain surgeons choose to do one 8 8 about only the citations in the report. product over the another. The fact that 9 MR. SNELL: Yes. That is my question. 9 51 percent like the mechanical cut and 49 don't, 10 10 That is my question. Do I need to repose it again it doesn't matter to me. Again, we're not talking 11 so we have a clear record? 11 about one product being great and the other one being horrible. They're both bad. So to me it's 12 THE DEPONENT: No. 12 13 BY MR. SNELL: Why don't we just do it 13 immaterial. 14 14 again. Q BY MR. SNELL: Did you assess or look A. That's fine. 15 at the reported rates of sales of mechanical cut 15 16 Q. Otherwise there's just going to be 16 versus laser cut in the United States? 17 four pages of gap. 17 A. Well, from my angle as a doctor, the 18 What specific methodology, did you use 18 needs of the patient come first. And sales are 19 in determining what Ethicon documents you would 19 not an issue that I'm going to be concerned about. 20 cite to in support of your opinions where you 20 Q. So the answer is, no, you didn't look 21 listed them in the footnotes? 21 at that? 22 22 A. Okay. I have to look at the body of A. The answer is what I just stated. 23 knowledge out there on medical literature, my 2.3 Q. Sir, my question is very simple, which 24 clinical experience and what I see day to day, 24 is: Did you look at it? 25 correlating that with what was known and discussed 25 I understand you want to give me a Page 231 Page 233 speech on things, but if you could just give me a in the Ethicon documents, whether it be from their 2 scientists, from their medical experts, from their 2 yes or no answer, then I can move on. If you say 3 clinicians calling in, correlating that and does 3 no, then I'm going to move on. 4 it all fit. Everything has to fit logically, 4 A. Well, no, because my speech, as you 5 5 okay, and that was what was included in this. did, is based upon my taking care of patients who 6 Q. So, for example, did you see company 6 are crying in my office from pain. So I don't 7 7 dismiss it as a speech. But medical marketing documents that indicated that the majority of 8 8 surgeons in the United States actually prefer sales are not something that's going to factor into my decision. 9 mechanical cut mesh as opposed to laser cut? 9 10 A. I've seen that, yes. Well, I'm sorry. 10 Q. I believe earlier you were talking Let me take that -- strike that. 11 about complications, and I think it may have been 11 12 I do remember seeing and reading that 12 around mesh exposures, where you said there would 13 be numerous different factors like patient 13 certain physicians would not change to the laser 14 cut. I can't say that the majority did. I also 14 factors, surgeon factors, the mesh. 15 15 see that certain surgeons would not use the Do you recall that? 16 mechanical one because of the fraying and the 16 A. Yeah. Concerning vaginal exposure. I 17 particle loss. So I don't know the percentage of 17 don't recall if I mentioned patient factors involved in it, but, I mean, maybe I did. I 18 who uses what. 18 19 don't -- I'd have to see exactly what I said. 19 Q. So you were not provided documents 20 that state that the majority of surgeons in the 20 Q. I wrote it down. 21 A. It's a multifactorial problem that 21 United States who use TVT prefer the mechanical 22 cut mesh as opposed to laser cut; fair? 22 leads to that complication. 23 A. I may have been provided that. I 23 Q. What are the patient factors involved? 24 don't recall that specific document. 24 A. Well, that's difficult because it's --

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I don't know of anyone ever studying to show

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Q. If that document existed, what would

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Page 234 Page 236 1 consistently a patient factor being involved in 1 standard thing that's out there. Same thing goes 2 the exposures. Smoking, I'm not aware of. 2 for pore size, too. 3 Obesity, I'm unaware of. Vaginal atrophy -- I 3 Q. And my focus is on the intended use 4 don't know of patient factors that can be 4 with the stress incontinence device and the 5 5 consistently proven to be a factor in vaginal application to treat stress incontinence. 6 6 exposure. A. Closest thing I think would have to be 7 Q. You are -- vaginal atrophy is a 7 a Clave study, breaking it down to the various 8 8 condition that women have that can progress or get weights, I think, if I'm answering your question 9 worse as they get older in their postmenopausal 9 correctly. But that's not as it pertains 10 years if not supplemented with some type of 10 specifically to SUI. 11 estrogen; fair? 11 Q. Right. That's what I'm looking for is A. There's the possibility of that, yes. 12 12 SUI. 13 Not in all cases. 13 A. I am not aware of that specific narrow 14 Q. But is that a common finding in women 14 application. who are postmenopausal that there is some degree Q. For SUI, the slings are typically 15 15 16 of vaginal atrophy? around 1 centimeter wide. 16 17 A. It's not uncommon, let's put it that 17 A. 1 to 1.5, probably. 18 way. So, yeah, it does occur. Q. Ethicon's TVT is reported to be about 18 19 Q. Is there a recognized weight 1.1 centimeters; correct? 19 classification specific to stress urinary 20 20 A. As it comes out of the box, which is 21 incontinence slings that has been endorsed and put 21 an important distinction. 22 out by any of the pertinent professional medical 22 O. Yeah. 23 societies? 23 But, yeah, they're all about that A. 24 A. Pertaining to what? I guess I don't 24 width. 25 understand your question. That they should or 25 Is it a fair statement that all of the Page 235 Page 237 should not get a TVT? 1 mesh slings, synthetic mesh slings that are used 1 2 Q. No, no. For the intended use of 2 to treat stress urinary incontinence have a weight 3 stress urinary incontinence. 3 of more than 60 grams per meter squared? 4 MR. CARTMELL: Object to the form. 4 Is there a recognized weight 5 5 classification system for slings? May call for speculation. 6 A. Well, no. The BMI is the standard 6 Answer if you know. 7 7 what is used. And but there's not, as it pertains A. Yeah. All I can speak to is Aris, 8 which I know is at 70. TVT at 105. I don't know 8 specifically to SUI treatments. 9 Q. I think you and I -- we weren't on the 9 that the other products. 10 same wavelength. 10 Q BY MR. SNELL: You read Moalli's paper For the weight of the mesh --11 on the biomechanical evaluation of slings? 11 12 A. Oh, okay. 12 A. I read it at one point in time. Not 13 Q. - and the intended use of treating 13 14 stress urinary incontinence, is there a recognized 14 Q. It has a table in there where it has 15 weight classification system that's endorsed by 15 the reported weights of the different slings. 16 the professional societies? 16 A. Okay. 17 A. No. As far as -- even in industry, 17 Q. Is that a paper you're relying on, the industry and surgical societies, there is -- as Moalli paper? 18 18 19 A. That's in my reliance list. But I'm 19 far as I know, there is no specific 20 classification. I think they have heavy weight --20 just saying I haven't read it recently. You're 21 you know, Cobb and others taught about heavy 21 referring to the 2007 paper? weight. So there would be that. And above 22 Q. Give me the title and I'll tell you. 22 23 certain -- or below certain numbers would become 23 A. Tensile Properties of Five Commonly 24 Used Mid-Urethral Slings Relative to the TVT, by medium weight and lightweight. I don't know if I 24

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Moalli, et al., June of 2007. Published in 2008.

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can -- I can't quote a society that has this

Page 238 Page 240 1 Excuse me. 1 of treating stress urinary incontinence? 2 Q. That's it. Yeah. Is that a paper 2 A. No. I've only seen it in pelvic organ 3 3 prolapse data and in meshes. Meshes for hernia you're relying on? 4 A. Yes. 4 repairs, but it was not extrapolated, even though 5 5 Q. Are there any studies in the stress Ethicon knew about it, into stress urinary 6 incontinence application with the use of TVT that 6 incontinence. 7 show that a lighter weight mesh is either more 7 Q. All right. And you're not testifying 8 8 that a lighter weight mesh would have worked efficacious -- strike that. 9 Let me just say is more efficacious 9 better than the TVT mesh in the TVT retropubic 10 than the TVT? 10 application to treat stress urinary incontinence; 11 A. Can you rephrase the question, because 11 are you? as I'm reading it. I can't quite understand. 12 12 MR. CARTMELL: Are you talking about 13 O. Absolutely. Yeah. 13 efficacy only? Are there any clinical studies 14 14 MR. SNELL: I can go with efficacy evaluating efficacy in women with stress urinary 15 15 first. incontinence that show that a lighter weight mesh 16 16 A. There is no data out there on it. 17 works better than the TVT retropubic device? 17 That would be an important thing to do before a 18 MR. CARTMELL: Object to the form. 18 launch is to study that to determine efficacy A. No, I don't think the weight of the prior to widespread use. 19 19 20 mesh --20 Q BY MR. SNELL: You would agree it's a 21 MR. CARTMELL: Can I -- can I get 21 benefit for the TVT retropubic device that they do have studies of 5 years, 10 years, or more 22 22 this? Can we take a break. 2.3 MR. SNELL: Yeah. An opportune time. 23 duration in the literature? 24 (Recessed from 3:31 p.m. to 24 MR. CARTMELL: Object to the form. 25 25 A. Yes, as we mentioned concerning 3:32 p.m.) Page 239 Page 241 1 MR. SNELL: Can you read back the 1 efficacy, but not safety. 2 question? 2 Q BY MR. SNELL: Well, there's --3 (The reporter read the record as 3 A. The lighter meshes, the larger pore, lighter weight meshes are for complications. Not 4 requested.) 4 5 5 A. As is worded there, I'm not aware of for efficacy. 6 it. I mean, Cobb and internal Ethicon documents 6 Q. And I understand you say that with 7 7 talk about lighter weight being better, fewer regard to prolapse and hernia. My question to you 8 8 is: With regard to complications, is it your complications, sort of things. But as you 9 specifically narrow it down to TVT, there is not 9 opinion that a lighter weight mesh was used in the 10 that study. 10 application of TVT for the treatment of stress Q BY MR. SNELL: And my question -- the 11 incontinence, cut to 1.1 centimeters, that there 11 12 initial question was on efficacy. 12 would be a lower complication rate? A. No. As far as I know. 13 A. There's the theoretical possibility of 13 14 Q. Okay. 14 that. However, my ultimate opinion is no meshes A. There is nothing out there, as far as should be placed transvaginally. 15 15 Q. Fair enough. 16 the lightweights. 16 The move was in hernias and pelvic 17 17 You mentioned the Clave study. That organ prolapse to go to lighter weight because of was not a study that reported on the use of the 18 18 19 the complications, but that was decided against 19 TVT retropubic device in women who had been 20 with TVT. 20 treated for stress urinary incontinence; correct? 21 21 Q. And so my question is I want to get A. Correct. That was, as I recall, for 22 into -- ask you about the complications. 22 pelvic organ prolapse. 23 Are you aware of any clinical studies 23 Q. Is this the Clave 2010 paper? 24 showing a lower rate of complications in women who 24 A. Correct. 25 receive a lighter weight mesh for the intended use 25 Q. Okay.

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Page 242 Page 244 1 (Exhibit 21 marked.) 1 I read that correctly; didn't I? 2 Q BY MR. SNELL: I've given you 2 I didn't see where you're reading. 3 Exhibit 21. This is the paper we were referencing BY MR. SNELL: Right here. 3 Q 4 by Clave; correct? 4 266 or 267? A. 5 5 A. Correct. 266 at the bottom right. 6 Q. Okay. This is the paper where they 6 Oh, yes. I see it now. Yes. I'm A. 7 start out with 100 explants and they only 7 sorry. 8 subjected 84 of them to scanning electron 8 Q. So when they try to do the other testings, the FTIR, the DSCs, they did not confirm 9 microscopy; correct? 9 10 A. Well, there were 100 explants, and I'd 10 degradation; correct? 11 have to look through how many got evaluated with 11 MR. CARTMELL: Object to the form. SEM. I don't recall the exact number. If you say 12 12 Misstates the statement. 13 it's 82, I'm okay with that. 13 A. Again, I'd have to see where you're 14 14 reading. I don't know where this is coming from. Q. 84. 15 15 Q BY MR. SNELL: This is a question to A. 84. 16 Q. I wouldn't misrepresent to you. Right you based on this study. 16 17 there. 17 A. Again, I'd have to -- it's been a 18 A. Okay. I got it. 18 while since I've gone over this paper. So I'd Q. You go it? 19 have to find all the nuances you're discussing. I 19 A. Um-hum. Thank you. mean, they describe degradation. They describe 20 20 21 Q. Under SEM analysis, it found that less 21 cracking, and to me that's degradation. 22 22 than half of the implants had this surface But the exact etiology of it, I don't 23 cracking; correct? 23 recall from the study what they came up with. 24 A. It's an extremely high number, yes. 24 Q. Well, when you see this cracking, that 25 Q. There were 35 out of 84? 25 could be polypropylene or something other than Page 243 Page 245 A. Yeah. That's -- that's a worrisome 1 1 polypropylene; correct? 2 number to me. I mean, it's 35 out of 80 women are 2 MR. CARTMELL: Object to the form. 3 having this degradation going on. 3 A. Well, all I can quote, as far as my 4 Q. And besides just looking at the 4 experience, obviously I have these papers which I 5 5 pictures on the SEM and seeing the cracking and reviewed, but I can only correlate that 6 saying that must be degradation, when they 6 macroscopically to my surgical experience. When I 7 7 actually did tests to analyze and see if it was take out these meshes, which I did, it happened to 8 degradation, those testings did not show it was 8 be a TVT-Secur last week. Where you hold it, it's 9 9 brittle, it cracks, it breaks, it's sharp; it degradation; correct? 10 A. You'd have to show me where you're 10 pokes the finger. Okay. To me that is 11 11 referring to. degradation. 12 Q. How about --12 Now, on the microscopic level, you 13 know, I don't know what exactly they call and what A. Because to me, degradation is 13 14 cracking, brittle --14 specific words they use to describe that process. Q. 266. 15 15 Q BY MR. SNELL: They didn't say it was 16 A. 266? 16 brittle and broke and cracked in your fingers in 17 Q. 266. You know that after doing the 17 Clave; correct? scanning electron microscopy, they subjected them A. No, they didn't say that. I'm saying 18 18 to FTIR, DSC analyses; correct? that's what me and my daily experience, including 19 19 20 A. Correct. 20 just last week -- that's what I feel, and that's 21 21 Q. And if you look at the bottom of what I'm calling degradation of the product. 22 page 266, they reported that several hypotheses 22 Q. Clave and them show pictures of 23 concerning the degradation of the PP are described 23 scanning electron microscopy with surface 24 below. None of these, particularly indirect 24 cracking? 25 oxidation, could be confirmed in this study. 25 A. Yes. But none of these are TVT, you

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said. So this is a very important study. Seems like they're raising red flags.

Next step is Ethicon needs to study it with their specific product.

- Q. And in Clave the explants have been explanted because of reported complications; correct?
 - A. I believe so, yes.

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- Q. There was no control group in this study of explants for which there was no complication reported; correct?
- A. Well, yeah, the complication was a manifestation of underlying pathology. So, no, you don't have a control because you're not going to go operate on women who do not have a complication yet.
- Q. And so the authors were unable to state whether or not this amount and this type of surface cracking is something that occurs in non-explanted meshes?
- A. I mean, you're really narrowing down the focus of this. Again, it's not a TVT product, but they were not able to say -- I guess, I'm not really following your question. I'm sorry.
 - Q. What I was getting at is on page 269,

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- vaginal mesh and tape fibers explants in women,
 okay. And that included TVT. They were removed
 four to seven years after, and it demonstrated
 degradation on SEM, and surface cracks, which
 corresponds to my clinical experience.
 - Q. In these seven explants, was there any oxidation found of the TVT mesh?
 - A. Oxidation is the process by which you get degradation. So in order to study for oxidation, you have to do some pretty sophisticated chemical studies on the microscopic level as far as what macrophages are doing. I don't know -- I'm not an expert on how exactly that would be accomplished. But if there's degradation, I know there's been an inflammatory response, which inflammatory response causes oxidation, is one of the main reasons with peroxides, hypochloric acid, et cetera.
 - Q. Has the reported degradation in these seven explants been confirmed in any standardized test, such as chemical analyses?
 - A. I'm unaware. I have to go back to the study and see what they've done from that. From my angle as a surgeon, I would want the company then to go back and look at some of this stuff for

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- they say, "For obvious ethical reasons this studydid not provide the opportunity to analyze vaginal
- 2 did not provide the opportunity to analyze vag
- $3 \qquad implants \ from \ non-pathological \ situations.$
- 4 Therefore, prediction of normal in vivo material
- 5 aging and the range of consequences in the
- 6 clinical state beyond the observed samples is not 7 possible."
 - A. That is correct.
 - Q. Okay. Can you point to any clinical studies, any studies on the TVT device to treat women that showed degradation of that TVT mesh?

And if you're looking at your report, just tell me what page so I can --

- A. Page 13.
 - Q. Give me a second. Okay.
- A. Specifically if you limit it to just
- 17 TVT, obviously I quote multiple different studies
- looking at polypropylene and the foreign body
- 19 response, the inflammatory response, the
- degradation, you have Mary, et al., Costello,
- 21 Clave, Wood. But on page 15 at the very top, the
- 22 first full sentence says, "In 2015 seven
- 23 implants." And that is -- if you look down at
- 24 reference 11, it's a Russian name, I think.
- 25 T-z-a-r-t-z-e-v-a. In-depth nano-investigation of

me.

- Q. Are there any studies that you're aware of on the TVT device that correlate and show that a particular complication was caused by degradation?
- A. Well, no. Degradation is part of the cascade of events. You have an implantation of a product that causes a foreign body response and inflammatory response, which then the immune system comes in with the various different dumping of various different product to try and to eliminate the foreign body, infection, and then degradation occurs.

So you're not going to find something where it's just degradation. It's a cascade of events.

- Q. Is there any clinical literature that shows any complications are caused by degradation?
- A. Well, I would say every study that there's a vaginal erosion or extrusion is evidence of degradation. Yeah, every time that I do an exam on a patient and find this brittle, cracking, hard mesh that is evidence of degradation.
- Q. Are there any studies that report degradation played any kind of role in a vaginal

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Page 250 Page 252 1 erosion or extrusion following a TVT? 1 different devices: correct? 2 A. Well, yeah, this T-z-a-r-t-z-e-v-a on 2 A. That's right. That's five different 3 3 page 15. There are seven explants, including TVT, devices. So TVT could be three of them. What I'm 4 that were removed after implantation. Okay. So 4 saying is this particular abstract does not break 5 5 some sort of complication. And they found it down into which one is which. 6 6 degradation there. Q. And you don't have a clue then as to 7 7 whether one was a TVT or two or three; correct? (Exhibit 22 marked.) 8 8 MR. CARTMELL: Just so you know, A. As I've stated, the abstract does not 9 Doctor, for the record, a lot of times people call 9 state that. 10 Q. And this abstract doesn't state what it the Zimmern study. It's easier to the 10 11 pronounce. 11 complications, if any, occurred with the TVT; 12 THE DEPONENT: Yeah. Phillippe at UT 12 correct? 13 Southwestern. 13 A. No. It states they were explanted for 14 14 Q BY MR. SNELL: This is the paper you some reason. 15 were referencing? 15 Q. And you note in this study they looked 16 A. Correct. It's an abstract. 16 for peaks of oxidation, and they didn't find any; 17 Q. It's T-z-a-r-t-z-e-v-a. 17 right? 18 A. Yeah. It's Zimmern. Phillippe 18 A. Okay. You know, they did or didn't. 19 19 Zimmern at Utah Southwestern's paper. Immaterial to me because it shows degradation. 20 Q. And this wasn't seven TVT devices as 20 Degradation can occur because of multiple 21 you put in your report; was it? 21 different reasons, but they didn't find it on this 22 A. No. I said including the TVT. So not 22 particular study. 23 all were TVT. 23 Q. And they didn't try to say the 24 Q. Right. In fact, how many of these 24 clinical effect, if any, of a 7-nanometer degree 25 25 of surface cracking; correct? were TVTs? Page 251 Page 253 A. Well, no, you have to extrapolate. A. I don't know if it actually says. 1 1 2 Seven explants. But I don't think they break it 2 There was a complication on all seven of these. 3 down into what -- which one has what. 3 They had degradation. They had cracking. 4 4 Q. Well, they had a Gynemesh; correct? Something went wrong. Was it infection? Was it 5 5 pain? Extrusion? Contraction? Dyspareunia. I A. Correct. 6 Q. And that's not a TVT retropubic 6 don't know. I'm just going -- they don't state in 7 7 device; correct? this paper, in this abstract. 8 8 A. No. It's an Ethicon product. Q. Do you believe that there are any 9 Q. Then they had a TVT; correct? 9 clinically significant complications that occur 10 A. Yes. 10 because of degradation? A. Yes. Q. They identify one TVT in this study 11 11 12 you cite; right? 12 Q. And where do you identify them in your MR. CARTMELL: Object to the form. 13 13 report? I'm sorry. 14 Misstates the paper. 14 A. That is in the section on Degradation, 15 A. Again, I'd have to see where it is. 15 beginning on page 13 through top of 16. 16 Q BY MR. SNELL: Well, you cite to it, 16 Q. So what specific complications, if Doctor. So I'm telling you, they cite to one TVT 17 17 any, arise because of degradation? in this study; right? A. Well, that's what we've talked about 18 18 19 19 multiple times here. Degradation is one of the MR. CARTMELL: That's not what it 20 says. It misstates the paper. 20 steps of the problems. It starts with 21 21 A. That's not what it -- it says seven implantation of a foreign body in a contaminated 22 explants were studied covering a range of 22 environment that creates inflammation, foreign 23 currently MT devices, Gynemesh, TVT, TOT, Sparc, 23 body response. Macrophages come in. They dump 24 24 and mini sling. their hydrogen peroxide, hypochloric acid. The 25 Q BY MR. SNELL: So that's five 25 product breaks down. It creates more of an

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Page 254 Page 256 1 inflammatory process. And it's a vicious cycle, 1 on. 2 which leads to then scarring, contraction, scar 2 Q. So that's what I'm asking you then, 3 3 plate, dyspareunia, pelvic pain, urethral erosion, okay? 4 4 bladder erosion. How do you know which exposures 5 5 So degradation is one of the steps of degradation played a role in, when in Clave they 6 6 didn't even see degradation, except in 45 percent this cascade. 7 7 Q. Are you aware of any reliable of them? 8 8 A. Okay. Then -- I mean -scientific studies that show the degree to which 9 degradation causes any of these complications you 9 Q. That's a scientific question I'm 10 just identified as compared to surgical technique, 10 getting at. 11 11 patient factors or any other causal elements? A. Well, yes and no with that. So 12 12 A. See, that's exactly what I've been 45 percent of the patients, based on Clave, had 13 trying to state this entire time. The whole 13 degradation and complications. That means the 14 device, as marketed, is bad because surgeons play 14 other 55 had other factors, surgical, implantation a role. The patient may or may not. I think 15 technique, roping, curling, whatever, to cause 15 16 that's questionable. We talked about that 16 complications. For myself, as a surgeon who takes 17 already. I can't find an identifiable source 17 care of these patients, I ultimately don't care 18 there. But then you have a bad product put in. 18 what causes the problem. I've got a problem I've 19 19 So the whole thing is bad. It's got to deal with. 20 multifactorial reasons why certain number of these 20 So if we want to base it upon Clave, 21 patients have devastating complications. 21 45 percent of these complications could have 22 22 Q. If a patient has a mesh exposure, do occurred due to degradation. It's 45 percent of 23 you assume that degradation was a cause? 23 patients who have been damaged due to degradation 24 A. Depends partly on when it occurred. 24 of the product. 25 However, I believe Clave said it was independent 25 Q. Is that an opinion you hold Page 255 Page 257 1 45 percent --1 of time of implantation that they found their 2 degradation. The longer it's in, intuitively and 2 A. No. 3 based upon the data and based upon like 3 Q. -- of exposures occur because of 4 Klosterhalfen says 15 years, degradation 4 degradation? 5 5 contraction continue, that the longer it's in, A. No, I don't. We're saying based upon 6 there's going to be more problems with it. 6 the Clave study. I have yet to see -- and this 7 Q. Well, Clave, they didn't even find 7 would be a very good study to be done, and it surface cracking in half of the explants. 8 8 should be done by Ethicon, if there's a concern 9 9 and they want to take care of patients and prevent A. But they found it in half. So tell a 10 patient, great, half of you aren't going to have 10 women from being damaged of studying these things. it at that point in time, but the other half are. 11 Q. But I'm here to learn your opinion; 11 12 Q. Maybe we're not communicating. 12 right. We've already gone through Clave, and 13 13 What percent of the women who have an 14 it didn't show degradation or surface cracking in 14 exposure is that caused by degradation? 15 more than half of the implants. 15 A. I guess --16 A. It was like 55 percent or something 16 Q. If you can't say or you don't know, 17 tell me that. But if you have a number, then I 17 like that, or in that ballpark. 18 want to know the methodology by which you come 18 O. Right. Right. So in those 55 percent, right, some of 19 19 to -- come to that number. 20 those patients would have had exposures; right? 20 A. If I have a patient who is seeing me 21 21 A. Possibly. I don't believe the article two or three days after a mesh sling with 22 22 exposure, that's not due to degradation, okay. states it. Q. That's her wound hasn't healed up? 23 Yet they didn't see surface cracking; 23 Q. 24 A. That's right. 24 right? 25 So that means something else was going Q. Maybe it was placed superficially;

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Page 258 Page 260 1 correct? 1 patients who have mesh who have devastating 2 A. Within a couple of days, that is not 2 complications, that's a statement you'd made 3 3 the mesh causing -- now, it will impair healing, earlier; correct? 4 because there's a foreign body reaction to things. 4 A. Multiple times that's based on my 5 5 But it's not due to degradation. clinical experience in talking and discussing it 6 6 with surgical colleagues. Q. Well --7 7 A. If somebody is occurring longer than Q. So you're not relying on any 8 8 literature to report the rates of devastating that, let's say beyond the initial healing period. complications with TVT retropubic; correct? 9 Six weeks is traditionally where the body will be 9 10 10 at roughly 98 percent of its strength. That's our MR. CARTMELL: Not relying on what? Object to the form of that. 11 usual, going by that six weeks. Beyond that, if 11 12 12 exposure or an event like that occurs, degradation A. No. I think certain patients --13 in my opinion is going to be one of the main 13 certain patients. 14 14 underlying factors for it, in combination with the Certain studies like Hou, et al., 15 15 which was also Phillippe Zimmern, who I personally infection, inflammatory response. 16 Q. And what's the methodology for that 16 talked to about his paper, where they had slings, 17 17 statement? where after -- they had only removed for pain. 18 A. Exact -- based upon the literature and 18 19 percent had persistent pain. Just to beat you 19 to the punch, they did not break it down into TVT 19 my clinical experience on a daily basis, including 20 2.0 in the past two weeks, four -- three TVT and one or not. 21 TVT-Secur patient I dealt with. 21 Q BY MR. SNELL: And they also didn't 22 22 report a denominator from which all those patients O. Let's talk about the literature 23 2.3 because I can't go and look at your charts, okay. were drawn from; correct? 24 In the literature, what studies show 24 A. They did not. That denominator, as 25 that if an exposure occurs beyond six weeks did 25 far as I know, is not known. Page 259 Page 261 1 degradation play a major role, I think you said? 1 Q. And that's an issue with case series, 2 A. Then we go back -- let's go back to 2 where you do not have a denominator, thus one 3 Clave then. And we've said -- we've admitted 3 cannot compute reliably the incidence; correct? 4 roughly 45 percent of those patients had 4 A. The true incidence, unfortunately, is 5 5 degradation. Okay. So based purely and just on not known, and it needs to be known because some 6 that paper, that will be my opinion, that 6 of these people's lives are destroyed. 7 7 45 percent for that paper. Q. So in a case series like you 8 8 But what I'm saying is it has been mentioned, a major limitation to that series is 9 inadequately studied elsewhere. Something that 9 that it does not speak to the incidence of those 10 10 needs to be done. complications; correct? 11 11 Q. Did Clave rule out other causal A. I would disagree with you that it's a 12 factors for the exposures in his study? 12 major limitation. It is a limit you cannot 13 13 A. I have -extrapolate across the board, but in his series, 14 Q. If he did, tell me how he did it. 14 in a very good reconstructive surgeon's hands, A. No. I would have to look at the paper 15 15 19 percent of SUIs had persistent chronic pain. 16 and see all that he's looked at. 16 Q. And you don't know how many were TVT; 17 Q. This study you talk about that you 17 correct? think Ethicon should have done, how would you 18 18 A. That is correct. 19 design that study? 19 Q. More likely than not, they were not 20 A. The basic unfortunate reality is it --20 going to have persistent pain; correct? 21 21 I don't know if it could be done. Hence the MR. CARTMELL: Object to the form. I 22 reason why I am anti-mesh in the vagina, because 22 think it's vague and ambiguous. May call for 23 you cannot safely make this thing work and cannot 23 speculation. 24 24 do it in a long-term. A. Oh, I see what you're saying. Okay. 25 Q. When you say that there are some 25 In the follow-up of these individuals,

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Page 262 Page 264 the FDA and the people what reviewed the TVT 1 there were 19 percent that had permanent pain. 1 2 Statically speaking, that means that you get rid 2 retropubic device 510K with regard to their 3 of the mesh, 81 percent got better. Therefore, 3 determination as to whether the TVT retropubic 4 the mesh is the source for the pain. 4 device is safe and effective? 5 5 MR. SNELL: Move to strike. A. No. I mean, I've seen that the --6 Q BY MR. SNELL: It was more likely that 6 that the FDA has made those statements. But what 7 7 the patients would get better as opposed to having I'm saying is, I don't know if they've received 8 8 persistent pain in the study you just told me all of the documentation and then their opinions 9 9 about: correct? on that, as far as the cytotoxicity, et cetera. 10 10 A. During the duration of their Q. Okay. 11 follow-up, 81 percent of the patients, once the 11 (Exhibit 23 marked.) mesh was relieved, had resolution of their pain. 12 Q BY MR. SNELL: I marked as Exhibit 23 12 13 Q. You wrote in your report that you 13 the FDA's statement, Considerations about Surgical believe that the TVT mesh is cytotoxic? 14 Mesh for SUI, 2013. 14 15 A. Correct. 15 This is a document you're familiar 16 Q. You saw that cytotoxicity -- that data 16 with? 17 were presented to the FDA in the 510K for TVT; 17 A. Correct. 18 right? I can withdraw it and clean it up. 18 Q. And you see this is off the FDA web 19 Dr. Elliott, you saw that, in the 510K 19 site as well? A. That is correct. 2.0 for TVT retropubic device to treat stress 20 incontinence, Ethicon reported the cytotoxicity 21 21 Q. Page last updated March 27, 2013; 22 data that you reference in your report to the FDA; 22 correct? I'll show you? A. Yes, I see it. 2.3 right? 23 24 A. I don't -- it's been a long time since 24 Q. And it says on the first page, "the 25 I read the 510K submission. I have to look to see 25 safety and effectiveness of multi-incision slings Page 263 Page 265 if they talk about the severely cytotoxic, marked 1 is well established in clinical trials that 1 2 cytotoxic part of these studies. 2 followed patients for up to one year. Longer 3 Q. You know in 2013 the FDA released a 3 follow-up data is available in the literature, but 4 4 statement regarding synthetic slings for the there are fewer of these long-term studies 5 treatment of stress incontinence? 5 compared to studies with one-year follow-up." 6 6 A. They had a release. Correct? 7 7 Q. And you saw the FDA wrote in that A. Correct. That's what they state. release that the full length mid-urethral sling 8 Q. Let me ask you this question. 8 9 like TVT retropubic device has been shown to be 9 It would be a true statement that the 10 safe and effective up to one year; correct? 10 safety and effectiveness of the Burch A. I would have to see that study. And 11 colposuspension, the autologous slings, biologic 11 12 let's just -- or not the study. But that 12 slings, cadaveric slings, all the different stress 13 13 incontinence options -- that the safety and publication. But let's just say they say that 14 exactly as you did. 14 effectiveness of them has been assessed more, to a 15 At one year. 15 greater volume in studies reporting on 12 months 16 Q. Right. 16 or less as compared to longer term studies; 17 17 A. Again, that's the limitation of all correct? 18 18 those statements. MR. CARTMELL: Object to the form. A. That would be true, that most SUI 19 19 Q. And has the FDA, to your knowledge, 20 ever concluded that the TVT retropubic device --20 studies are short-term because they're easier to 21 21 that the mesh is cytotoxic? do, and that's why the data is poor to moderately 22 A. I have not seen that in any of their 22 poor. 23 writings. I don't know also what information 23 BY MR. SNELL: So what you just said 24 24 there, let me make sure I understand you. they've received. 25 Q. You have not seen any documents from 25 Shorter term studies assessing stress

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Page 266 Page 268 60 months follow-up. 1 urinary incontinence surgery are easier to do than 1 2 longer term studies? 2 Of that 2.4 percent, can you say how 3 3 many of those 17 patients had the defective A. Correct. Q. That applies across the board? 4 4 vaginal healing because of cytotoxicity, or is 5 5 A. Correct. I mean, shorter term studies that known? 6 are easier to do because they're short-term. You 6 A. That has not been studied to date. 7 7 have less patient loss to follow-up those things. because as I mentioned, I didn't even know the 8 Q. What studies, if any, in women show 8 cytotoxicity report even existed until I got 9 involved in this. So no one out in the community, that cytotoxicity causes any complications with 9 10 10 our physicians, researchers are going to know that the use of TVT retropubic device? 11 A. There have been none because the issue 11 exists. They're not going to study it. 12 Q. What percent of TVT retropubic devices 12 of cytotoxicity has not been released to the 13 general public. Therefore, someone is not going 13 is the mesh cytotoxic? to study that if they don't even know it exists. 14 A. Well, from what they state here, if 14 Q. Do you know the 510K documents on TVT 15 this TVT is studied and has been shown to have 15 16 are publicly available at the FDA and available 16 marked cytotoxicity or severely cytotoxic in these 17 17 through a Google search on the web sites? two references and that mesh is put in the 18 A. They may be. I don't -- I don't know 18 patient, then 100 percent of those have the 19 because I don't search that. 19 potential for cytotoxicity. 20 20 Q. You've never attempted that search? Q. All right. So if 100 percent have a 21 A. Not with this device. I've done it 21 cytotoxic mesh, why is it that 97.6 percent in the 22 22 with the ObTape, and I couldn't find it. Wang study who were followed out beyond 60 months 23 didn't have any defective vaginal healing? 23 Q. Okay. Are there any complications 24 that you believe are due to cytotoxicity? 24 A. It's going to be, again, 25 A. Possible --25 multifactorial. The vaginal healing, the duration Page 267 Page 269 1 Q. Let me make sure because I want to 1 of follow-up, is smoking going to play a role, 2 2 focus on TVT, not leave a vague question out there obesity, impaired vaginal status. And, again, 3 because we were last talking about ObTape. 3 what's going to be these people 15, 20, 30 years 4 So for the TVT retropubic device, are 4 from now. 5 5 there complications which you believe are caused MR. SNELL: Move to strike as 6 6 by cytotoxicity? nonresponsive. 7 7 A. In theory, possibly all of them, Q. BY MR. SNELL: My question was: If 8 8 100 percent of people have the cytotoxic TVT because cytotoxicity is cell death. Cell death 9 will increase the foreign body response, the 9 retropubic mesh, why is it that 97.6 percent of 10 inflammatory response, subsequently increase the 10 the patients in Wang did not have the defective 11 degradation, cracking, increase pain, increase the 11 vaginal healing? 12 potential for infection. I'm saying possibly. It 12 A. See the -- not to be critical, but 13 13 could be. your logic is impaired. 100 percent of people who 14 Q. Okay. 14 smoke don't get lung cancer. 100 percent of A. That has not been studied to date. 15 15 people exposed to asbestos don't get mesothelioma. 16 Q. Okay. For example, you pointed me to 16 100 percent exposed to TVT aren't going to have the Wang paper earlier, and we looked at it, and 17 17 those devastating complications, but certain ones 18 there was a 2.4 percent rate of exposure; right? 18 A. There was 17 out of 700 that had 19 19 Q. And that's what I'm trying to 20 impaired vaginal healing. And I can't recall the 20 understand and test here. All right. 21 21 data beyond that. What is it about the 97.6 percent of 22 Q. It was 2.4 percent? 22 the patients who didn't have defective vaginal 23 A. Okay. I remember the 2.4 percent. 23 healing that led this cytotoxic mesh to have no 24 Q. Okay. So working with that number, 24 role or no effect on the --

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A. Okay. We decreased it down. You said

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2.4 percent, and we looked and there was more than

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Page 270 Page 272 1 defective vaginal healing. 1 be studied. 2 Q. I was trying to use the words you 2 Q BY MR. SNELL: Okay. That was my 3 said. 3 question. 4 A. You're correct; 2.4 percent had 4 Of -- and I was really focused on 5 defective vaginal healing. That is just one of 5 dyspareunia. Of the four patients with 6 the complications. Not all cytotoxicity or 6 dyspareunia, you can't say, reliably, 7 7 degradation is going to go just to mesh extrusion. scientifically, which if any of those four were 8 8 I'm talking pain, contraction, roping, the caused by cytotoxicity; correct? 9 degradation process. Pelvic pain, vaginal pain, 9 A. No. You are correct because all I can 10 dyspareunia. 10 say is there was some defect in the product that caused this. I cannot attribute that just to 11 So they are just saying, just in this 11 12 12 limiting it, 2.4 percent had defective vaginal cytotoxicity. 13 healing. Okay. So that's narrowing the number I 13 Q. And Wang did not rule out other 14 talked about before, okay. I cannot answer the factors besides the mesh; did he? 14 15 question as to why don't all. All I know is that 15 A. I don't recall Wang giving a specific 16 to me this is a red flag and patients and doctors 16 opinion on that, what necessitated. 17 need to be warned of that possible cytotoxicity. 17 Q. How would you design a study like you 18 Q. For example, we looked at the number 18 state Ethicon should do with regard to 19 of patients who reported dyspareunia and there was 19 cytotoxicity to see what effect, if any, it would 20 four out of that group. 20 have on complications for women receiving the TVT 21 A. Five complained of pain. Four 21 retropubic device for stress incontinence? 22 22 complained of dyspareunia, and then five A. You cannot ethically construct a study complained of vaginal bleeding. 23 23 of putting a product in that has the possibility 24 Q. Right. So for the dyspareunia, 24 of cytotoxicity in a patient for a quality of life 25 right -- we addressed this somewhat. I will 25 study. You can't do it. It would never get Page 271 Page 273 represent to you I calculated that, and it's 1 1 approved and no woman would accept it. 2 0.56 percent. Okay. 4 out of 700. 2 Q. Am I correct that for the pore size of 3 For that 0.56 percent of patients who 3 the TVT mesh you cannot reliably say 4 had dyspareunia, is there a way to scientifically 4 scientifically what complications are caused due 5 5 reliably say, which, if any of them, that was to pore size in TVT patients? 6 caused by cytotoxicity? And if there is, I want 6 MR. CARTMELL: Object to the form. 7 7 to know the methodology by which you would A. As I've stated multiple times, as 8 8 conclude that. outlined in my report, we have an overall system 9 9 A. That would require a study by Ethicon design failure. 10 to do that. And so all I know is we have a red 10 Specifically small pore, what role is 11 flag. We have marked cytotoxicity. We have 11 that playing in percentage of the complications. 12 complication. These are just limiting to the 12 No, I cannot state that. 13 specific one. I cannot point to a paper and say 13 Q BY MR. SNELL: You have not studied 14 that because then it has not been studied because 14 the rates of complications of stress urinary 15 individuals didn't know to study it. It needs to 15 incontinence slings to see whether there is a 16 be studied, though. 16 statistically significant different rate of 17 17 Q. So I think in fairness, the answer to complications that occurs dependent upon pore 18 my question was, no, you don't know that; correct? 18 size; correct? 19 MR. CARTMELL: Objection. Asked and 19 A. You are partly correct. However, we 20 answered. He just answered your question. 20 do know from the hernia mesh data and the Vypro 21 21 A. No. And I will reiterate just what I mesh data that complications can be reduced with a 22 said again. Cytotoxicity is a red flag of 22 large poor lightweight. It has not been extended 23 something going on. We know there's cytotoxicity 23 down into the TVT like it should have been. So 24 there. How much of a role it plays in all the 24 you are correct. That data does not exist and it

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should exist.

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other complications, I don't know. That needs to

Page 274 Page 276 1 Q. Actually, that data do exist to some 1 body. 2 degree in the application of stress urinary 2 Q. No surgeon in the world that you're 3 3 incontinence because there are data like the aware of has ever taken a larger pore, lighter 4 Cochrane Reviews that show that multifilament 4 weight hernia mesh, cut it down to 1.1 5 5 meshes have higher complication rates than centimeters, put it in a sheath and placed it 6 6 retropubicly, like the TVT retropubic device; monofilament meshes; correct? 7 7 A. Yes. But we're talking about the TVT correct? 8 8 here. And I'm talking about lightweight hernia A. I am unaware of anybody doing that. 9 mesh. You know, Ethicon employees all agree, 9 Including Ethicon. 10 10 Q. Therefore, you are unaware of any lightweight, small -- or large pore reduce 11 complications. The Cochrane has nothing to do 11 studies in the application of a stress urinary 12 12 with lightweight, large pore meshes. It doesn't incontinence tape that show that when put in that 13 exist, as far as I know, for slings. 13 configuration and used as the TVT is, 14 14 Q. The multifilament meshes assessed in retropubicly, with the passage of trochars, that 15 the Cochrane Review that had higher rates of 15 there is a lower complication rate in stress 16 complications compared to the monofilament meshes 16 incontinent women; correct? 17 17 like TVT have a smaller pore size than the TVT MR. CARTMELL: Object to the form. I 18 mesh; correct? 18 believe it misstates his opinions in this case and 19 19 A. No. You are correct, but we're the report. 20 20 talking -- yes, I agree with you. Q. BY MR. SNELL: Go ahead. 21 The ObTape, the ProteGen, the 21 A. And therein lies a huge deficit of 22 22 what Ethicon should have done. They knew the data Gortexes, the Amid 3's have higher implications 23 than TVT. I agree with you. But what I'm saying 23 on hernia meshes and prolapse meshes. Large pore, 24 is the next level up above TVT, the lightweight, 24 lightweight fewer complications. They did not take the next step of extrapolating that to TVT, 25 large pore meshes, it does not exist. The 25 Page 275 Page 277 technology exists for it, but the product has not because, as they said, now their TVT data no 2 been done in any studies for women in stress 2 longer holds up. So they made a decision not to 3 incontinence. 3 do that. 4 Q. Right. Okay. So those larger pore, 4 Q BY MR. SNELL: Well, you would 5 5 lighter weight meshes have not been cut down to criticize Ethicon for wanting to have a product 1.1 centimeters, put into sheaths and tested by 6 6 that has longer term data than all the other 7 anyone; correct? 7 meshes out there, including ones you, yourself, 8 A. That is correct. In my opinion it 8 have used? 9 9 MR. CARTMELL: Objection. should have been. 10 10 Q. All right. What physicians and Argumentative. 11 surgeons -- well, strike that. 11 A. Well, I have no problem with them 12 If physicians and surgeons wanted to 12 having long-term studies out there, but I'm saying 13 they're not focused on safety. And I'm saying if test larger pore, lighter weight hernia meshes in 13 14 the application of stress incontinence, couldn't 14 they knew, if a corporation knew that there were a 15 they cut slings made of ULTRAPRO and test it for 15 better product available and they chose not to, 16 incontinence? 16 purely for marketing, that is unethical, 17 17 A. I can't speak to what surgeons could unacceptable. 18 or could not do. 18 Q BY MR. SNELL: How do they know it's 19 Q. Well, you cut mesh and put it in the 19 better in the application of stress urinary 20 body however you wanted; didn't you? incontinence when the sling is only 1.1 20 21 A. No. 21 centimeters? 22 Q. You didn't do that for sacrocolpopexy? 22 A. They should --23 A. I configured an already Y-shaped mesh. 23 MR. CARTMELL: Object to the form. I 24 I did not take something and create something new. 24 don't understand the question.

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A. No.

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I just configured it to fit into the patient's

Page 280 Page 278 1 MR. SNELL: I mean, you're -- I mean, 1 there at 6:00, I'm going to get my brains beat in. 2 what you're talking about is Ethicon's state of 2 I'm not doing that. 3 3 mind, and that will not fly with this judge. So MR. SNELL: Well, then we're going to 4 I'm going to withdraw that question. 4 have to agree that whenever I can make it and the 5 MR. CARTMELL: Let's take a break. 5 doctor make it, we'll do the New Jersey general 6 MR. SNELL: That's fine. 6 TVT portion. 7 7 (Recessed from 4:25 p.m. to MR. CARTMELL: Well, that's fine. But 8 8 4:42 p.m.) I'm not --9 MR. SNELL: You do know that I'm here 9 MR. SNELL: Because the person who's 10 10 to question him on his New Jersey report as well? deposing him in Watkins --11 MR. CARTMELL: No, I didn't know that. 11 MR. CARTMELL: Look, there's --12 MR. SNELL: Ben didn't tell you that? 12 MR. SNELL: Let me just say something. 13 MR. CARTMELL: Hum-um. 13 MR. CARTMELL: This is ridiculous that 14 MR. SNELL: He said he wanted it all 14 you take 7-hour depositions. MR. SNELL: The person disposing him 15 15 done in one sitting. So --16 MR. CARTMELL: He told me next week in 16 in Watkins is only case specific. That was all 17 Minneapolis. 17 agreed to and hammered out --18 MR. SNELL: That's only case specific 18 MR. CARTMELL: Nobody told me that. 19 19 on Watkins. I'm doing the New Jersey general MR. SNELL: -- between Ben and 20 stuff today. 20 everybody in these big mass emails. All right. 21 MR. CARTMELL: Okay. 21 Well, let's just -- let's jump on it, okay. 22 MR. SNELL: That's what they told me. 22 MR. CARTMELL: Okay. 23 MR. CARTMELL: I'm not doing that. If 23 MR. SNELL: We'll find something that 24 you're telling me you're going longer than 24 works. But I'm telling you -- and you know it. I 25 7 hours ---25 know you're tied up and I'm tied up, through the Page 281 Page 279 1 1 MR. SNELL: Yeah. 5th, okay. But I'm here today, prepared to do the 2 MR. CARTMELL: -- I ain't doing that. 2 New Jersey general after this one. 3 MR. SNELL: Well, why didn't Ben tell 3 MR. CARTMELL: Well, I'm not. 4 you that, because that's the agreement. 4 MR. SNELL: I know. I know. 5 MR. CARTMELL: Nobody told me that. 5 MR. CARTMELL: I'm not doing that. 6 MR. SNELL: That's the agreement I put 6 I'm not doing 9 hours --7 7 in the emails, too. Ben was having --MR. SNELL: I don't know why they 8 8 MR. CARTMELL: This was the didn't tell you. 9 9 consolidation deposition. MR. CARTMELL: I'm not making the 10 10 MR. SNELL: Right. And then but Ben doctor do 9 hours of deposition. That's ridiculous. This is crazy. We're, again, going 11 said, but you need to do his New Jersey generally 11 12 TVT at the same sitting because Watkins case 12 over stuff that I think you even covered in his 13 13 specific is next week. And I said, okay, I'll first depo. 14 start that after I finish the design defect. It's 14 MR. SNELL: I've only deposed him on 15 all in the emails. I'm surprised he did not tell 15 Prolift. 16 you that. 16 MR. CARTMELL: But that doesn't matter. A lot of this stuff has been talked 17 17 MR. CARTMELL: He didn't tell me and 18 I'm not doing it. 18 19 19 MR. SNELL: No. But this is in the MR. SNELL: Is that on the record. I 20 20 mean, because I came here and flew here to do application of the design of TVT for stress 21 both. And I'm not available next weekend, okay, 21 incontinence. That was the agreement. 22 22 MR. CARTMELL: Go. You've got because I have my own experts. 23 MR. CARTMELL: I'm not available 23 48 minutes. 24 24 tonight, and I -- I agreed to do this, and I have MR. SNELL: That was the agreement, 25 something I have to be at at 6:00, and if I'm not 25 okay. That's why I came here. And I'm prepared

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Page 282 Page 284 1 to do that. 1 section of my report, which I have down here 2 MR. CARTMELL: I wish I had known. 2 starting on roughly page 17, it appears. 3 3 In there I say, Ethicon's medical MR. SNELL: I wish they would have 4 told you, to be honest with you. And I wish they 4 director stated that TVT can shrink -- generally 5 would have told me, because I was preparing to go 5 believe TVT mesh would shrink approximately 6 out tomorrow. And as for the length of deposition 6 30 percent post implantation, and that is an 7 being ridiculous, in New Jersey some of my experts 7 internal document. 8 8 were deposed for more than 13 hours. MR. SNELL: So respectfully move to 9 MR. CARTMELL: I just can't believe 9 strike. 10 10 this. But go ahead. Q. BY MR. SNELL: My question was: Are 11 MR. SNELL: All right. So we'll pick 11 you aware of any clinical studies that assess the TVT in the application of stress urinary 12 it up. Are you ready, Doc. 12 13 THE DEPONENT: Yes, I am. 13 incontinence and reported that there was no Q BY MR. SNELL: You got your report shrinkage with the TVT mesh? 14 14 15 A. That there was no shrinkage? I'm 15 there handy? 16 A. Yes, I do. 16 unaware of any studies that's documented no 17 Q. Can you just turn to page 20. 17 shrinkage. 18 18 Q. Okay. The Vypro mesh, you're aware A. Yes. 19 that -- let me back up. Q. The picture there, that is not a 19 20 picture of the TVT retropubic device to treat 20 So you make reference to Vypro and 21 stress urinary incontinence; is that correct? 21 ULTRAPRO in your report; I believe; correct? 22 A. Vypro. I'd have to look and see with 22 A. That is correct. Q. All right. The width of whatever that ULTRAPRO, where I put that. But Vypro, yes. 23 23 24 mesh is is a lot more than 1 centimeter; correct? 24 Q. In the context of a hernia or animal 25 A. I don't know the dimensions on that. 25 study; correct? Page 283 Page 285 1 1 I have to go back to the original document. A. That's correct. On page 21 of my 2 Q. Well, if you look at the number of 2 report. 3 pores all the way across it, you and I can agree 3 Q. You know Vypro was assessed even for the application of prolapse and was found to have 4 that that's a lot more than 1 centimeter wide; 4 5 5 a greater than 10 percent exposure rate; right? correct. 6 MR. CARTMELL: Object to the form. 6 A. That is correct. But it was less than 7 7 A. Again, I can't say. I just don't the existing Gynemesh. know. I'm saying I don't know what it is. I'm 8 8 Q. Actually it was assessed and it was 9 not disagreeing with you. I just don't know. 9 found to be 17 percent and Dr. Jacquetin found Q BY MR. SNELL: There's no sheath on 10 10 that it was not tolerated by the body. that mesh; correct? A. Okay. 11 11 12 12 O. Is that correct? A. That is correct. 13 Q. And there's certainly no trochars 13 A. I don't recall that. I have no reason connected to it; correct? 14 to doubt that it's incorrect. 14 15 A. That is correct. 15 Q. Okay. And the ULTRAPRO, you're aware 16 Q. And you don't know how that --16 that that was ultimately put into the Prolift Plus, and there were mesh exposures with that mesh 17 whatever mesh it was stretched; is that correct? 17 in the POP application; correct? 18 A. I'd have to go back to the original 18 19 MR. CARTMELL: Object to the form. Go 19 document and see what they said. Q. Okay. Are you aware of any studies 20 20 ahead. 21 21 that have looked at potential shrinkage with the A. Yes. Again, and that reinforces my TVT device in the application of stress 22 opinion. Mesh should not be placed in the vagina. 22 23 incontinence treatment that report that there was 23 Can we just -- I'm sorry to 24 no shrinkage with the TVT? interrupt -- deflect the curtain the opposite 24 25 A. We'd have to go to the contraction 25 direction. Thank you. Feel like God there for a

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Page 286 Page 288 1 second; I was glowing. 1 Q. And they talk about the use of a half 2 Q BY MR. SNELL: You know that 2 absorbable mesh does not seem to reduce 3 Dr. Jacquetin in the TVM group assessed Vypro in 3 inflammation and could even accentuate it; 4 the transvaginal mesh pelvic organ prolapse 4 correct? 5 5 application? A. That's correct. All right. And then 6 A. That is correct. I've read that, yes. 6 they go on to say, "Good results of the TVT does Q. And they found that tolerance of that 7 7 not seem to be much modified by the additional" --8 8 okay. That's separate. material was poor? Q. Your understanding --9 MR. CARTMELL: Object to the form. 9 10 You got the study. Show it to him. I think -- I A. I have to see if that Vypro -- they 10 11 think you're misstating the study. 11 mentioned a bioabsorbable, is if they have Vicryl Q BY MR. SNELL: You're aware of that; 12 12 in there --13 correct? 13 Q. Right. A. -- or a collagen base of some sort. 14 A. I am aware that they did look at it. 14 I am not aware of the specific details of that That's associated with increased inflammation. 15 15 16 study. It's been a while since I looked at that MR. CARTMELL: Hey, put the name of 16 17 study. 17 that study and the citation to it on the record, 18 Q. I have it here on the computer. 18 please. 19 A. That's fine. Which name or title is 19 MR. SNELL: Yeah. Denis, D-e-n-i-s, 20 it? Or who's the lead author? 20 Abstract 620. It was an abstract presentation. 21 Q BY MR. SNELL: Denis, D-e-n-i-s. 21 And Dr. Jacquetin there, too. All of the study 22 A. Okay. 22 subjects coming out of Clermont-Ferrand. Abstract Q. Denis, Jacquetin. Here you better --620 at the joint ICS/IUGA 2004 conference in 23 23 24 okay. You need to maximize -- there you go? 24 Paris, France. I'll make that representation. I 25 A. Oh, so it's an abstract. 25 know that's where this is from. Page 287 Page 289 1 1 Q. Right. THE DEPONENT: And I was at that 2 A. Okay. 2 meeting. 3 Q. You see that they reported the 3 Q BY MR. SNELL: Did you see this tolerance was poor? 4 4 presentation? 5 A. Let me go to their conclusions. 5 A. I don't recall seeing it, no. Q. Can I come around and look at it with 6 6 Q. And you know the Vypro mesh, it's a 7 larger pore mesh than the mesh used in the TVT you. 7 8 A. By all means. 8 device; correct? 9 Q. Because it's electronic, just so the 9 A. It is. 10 record reflects -- it says in this study that 10 Q. And the Vypro mesh uses a combination tolerance of the Vypro mesh is VERY poor; correct? of Vicryl with the Prolene polypropylene; correct? 11 11 12 A. That's what it states, yes. 12 A. Again, I'd have to refresh my memory. Q. High rate of erosion, and problems of That is my recollection. It is partially 13 13 14 cicatrisation have been observed. 14 absorbable. Q. All right. The Vicryl part is what 15 A. Correct. C-i-c-a-t-r-i-s-a-t-i-o-n, 15 16 which just means scars. absorbs over time? 16 17 Q. Okay. 17 A. That is correct. A. Contraction. Q. And the Prolene polypropylene mesh is 18 18 19 Q. And it also had complications of 19 what's left behind; correct? retraction and rigidity were observed with the A. That is the permanent portion of the 20 20 21 Vypro mesh? 21 implant, yes. 22 A. That is correct. 22 MR. SNELL: Let's mark this. 23 Q. Frequently with clinical severe 23 (Exhibit 24 marked.) Q BY MR. SNELL: Exhibit 24 is a study 24 consequences; correct? 24 25 A. That is correct. 25 of various meshes, fascia, animal, cadaveric

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Page 290 Page 292 materials, and the rabbit model with implications 1 1 However, in the first 10 patients we didn't know 2 for sling surgery; correct? 2 the tensioning of this. No one had ever done it 3 3 before. And so we're accounting for a lot of A. That is correct. 4 Q. This is a paper you were one of the 4 different factors. Is it going to -- is it going 5 authors of: correct? 5 to tighten up or is it going to stretch out. We 6 A. I was the lead author. 6 didn't know. 7 Q. Okay. And this was published in the 7 Q. Okay. 8 8 Journal of Urology? A. And that's why it's a feasibility A. Correct. In 2004. 9 9 study. 10 10 Q. All right. Is the Journal of Q. Okay. The last page you talk about "the polypropylene mesh has extremely low 11 Urology -- does it have a poor peer review 11 stiffness at baseline, but it demonstrated 12 process? 12 13 A. A poor, meaning incompetent? I 13 increasing stiffness with time. This phenomenon 14 is likely caused by the ingrowth of tissues into 14 mean --15 the interstices of the mesh." 15 Q. Okay. A. As opposed to pore, p-o-r-e? You're 16 A. That's correct. That's what we 16 talking poor, p-o-o-r? 17 17 stated. Q. Yes, sir, p-o-o-r. 18 18 O. Is that an accurate statement? A. No. It would -- in urology, it is 19 19 A. That is an accurate statement of what probably one of the most strict peer review, along 20 20 we found. We did not know at that point in time 21 with the European Urology Journal. 21 the potential implications of that. 22 O. All right. So among the various 22 O. You concluded that the biomechanical things assessed, one was polypropylene mesh. results of the current study support the use of 2.3 23 Another was autologous fascia; correct? 24 24 polypropylene mesh for sling surgery relative to 25 That is correct. And it was the Sparc 25 other non-autologous materials; right? Page 291 Page 293 that we used. 1 A. Again, that's what we stated as of 1 2004 in our short-term study because we found the 2 Q. And Sparc was a -- that was a 2 3 monofilament polypropylene mesh; correct? 3 increased stiffness and thought that that would be A. Correct. Quite similar to TVT. 4 increased as far as efficacy. And we didn't 4 5 Q. And there was a rapid loss of strength 5 realize that that process continues. 6 and stiffness in the porcine and cadaveric 6 Q. You published a subsequent study in 7 follow-up; correct? 7 materials; correct? 8 A. Correct. By Krambeck, et al. 8 A. That is correct. 9 Q. And the autologous fascia, as well as 9 MR. SNELL: Go off the record for a 10 small intestinal submucosa demonstrated the 10 second. highest rate of contraction; correct? 11 11 (Exhibit 25 marked.) Q BY MR. SNELL: So-Exhibit 25, Doctor, 12 A. In this short-term limited, yes, 12 is your follow-up study that you published in 2006 that's what we found. 13 13 14 Q. Does the autologous fascia contract in 14 in the Urology Journal; correct? A. Correct. 15 the human body? 15 16 A. It is reabsorbed. And remodeled is 16 Q. And this was a study where you found the term we usually use. As opposed to significant differences were found for 17 17 contraction. inflammation, eosinophil infiltrate and 18 18 inflammatory rind at 12 weeks with polypropylene 19 19 Q. I saw in your pilot study with the 10 patients with the transobturator autologous 20 20 mesh having the lowest degree; correct? sling that you reported that you placed that sling 21 A. That was one of our findings. 21 22 loosely in order to hopefully minimize contraction 22 Q. And that was a study looking at of the autologous tissues. polypropylene mesh versus cadaveric fascia, 23 23 porcine dermis, porcine small intestine submucosa, Do you recall that statement? 24 24 25 A. I don't recall that statement per se. 25 and autologous fascia; correct?

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A. Those were all the properties or the substances we studied.

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- Q. All right. And you reported that the inflammation with the cadaveric fascia and porcine may cause rapid clinical deterioration compared to the autologous fascia and polypropylene mesh?
- A. That is correct. That was the main purpose of this study, looking at what happens to the cadaveric and porcine materials. Does the body rapidly absorb them, which we found out it did. And the polypropylene had the greatest degree of scar formation.
- Q. And that's one of the reasons why cadaveric fascia and porcine materials for use in the sling application never really caught on to a large degree because, with longer term follow-up surgeons found that those slings would actually be absorbed into the body; correct?
- A. Partly correct. The porcine, no question. The porcine dermis and then the porcine SIS, in my opinion, were horrible products. I used them and they failed miserably. It was worthless to do that. Actually worse than worthless.
 - The -- I forget the rest of what your

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- incorrect with that. We had our facts right, our conclusion wrong.
- Q. You wrote that the facial slings using harvested autologous fascia which increases operative time and patient morbidity.

And that's true as of today; correct?

- A. I would not disagree with that.
- Q. And you report other studies have shown a decrease in tensile strength of cadaveric fascia; correct?
- A. Correct. But the issue was -- we assumed at that point in time that increasing tensile strength was a good thing. We're now realizing that the pelvis and the vagina are elastic and have to bend, and so we're not necessarily agreeing with the conclusions I had in this study.
- Q. You found that the xenograft and cadaveric products demonstrated high degrees of inflammatory infiltrate; correct?
- A. That is correct. Specifically with the SIS. And those had a significant immune response to it. Yes. And those are not used in our practice at all anymore because of that.
 - Q. Okay. What is the significance of the

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- 1 statements were. But the --
- 2 Q. Cadaveric. With regard to the 3 cadaveric.
 - A. And the cadaveric -- there's multiple different types of cadaveric and how they are processed. And some are good and some are not good. The one we found here raised questionable results.
 - Q. How do you know which ones are good and not good until you try them?
 - A. That's a major problem, but pretty much agreed upon, freeze died eradiated cadaverics have a higher -- not degradation. Decomposition. De --
 - Q. The eradiation process that you need to do to cadaveric tissue to reduce any potential transmission of disease is known to cause those materials to degrade; correct?
 - A. Yes.
 - Q. And you wrote here that the fibrosis and scarring noted with the polypropylene mesh may also contribute to a more lasting repair; correct?
 - A. You're correct. That was at that point in time the conclusions that we reached. And we subsequently discovered that we were

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- 1 SIS for the porcine? Is that a single incision 2 sling?
 - A. No. It's just like -- instead of using cadaveric tissue for the sling, we use SIS, which is pig intestine, submucosal pig intestines. There's also porcine dermis, but both of them contain porcine DNA and are not recommended to be used.
 - Q. And you're right. "We also noted a low degree of inflammation with polypropylene mesh compared to the other materials."
 - A. Yes. And that's a relative statement in the short-term in the rabbit model compared to the processes that we know create a significant amount of immune response because they still have porcine DNA. So there's a major foreign body reaction to that.
 - Q. And you found that there was a low degree of inflammation with polypropylene mesh, which was similar to what was seen with the autologous fascia; correct?
- 22 A. Correct. In the short-term that is 23 correct. That's what we found.
 - Q. And so the polypropylene mesh in your study acted most closely to the autologous fascia;

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Page 298 Page 300 1 correct? 1 Q. You say UCLA State of the Art Urology 2 A. Correct. In the rabbit model, placed 2 Meeting --3 3 transabdominally, that is the conclusions we A. Oh. Oh. Q. -- page 4. 4 4 reached in 2008. 5 Q. All right. I mean, some of the 5 A. That's a yearly meeting that they have 6 studies you cite to are in dogs and other animals 6 that Raz and other experts discuss. That was an 7 7 that are not even in the sling application like attendance-only meeting. That's not Grand Rounds. 8 8 Q. Okay. I'm sorry. you tried to do; right? 9 A. I agree. 9 A. No. 10 10 Q. Were you just kind of -- were you Q. So are you saying that your study is identifying different conferences or meetings you 11 not important, or that --11 12 12 A. No. go to typically? A. Correct. That was continuing medical 13 Q. -- the findings are inaccurate? 13 A. No. I'm saying it has to be looked at 14 14 education. as far as -- this is looking what the rabbit model 15 15 Q. Okay. A. Where specifically UCLA is well-known does to these various different slings in the 16 16 17 17 short-term. I think they're very important for having Dr. Raz there. So there's always a strong female urology section to it. That's all 18 18 findings. 19 19 that's stating. Q. You say, our results -- "the 20 2.0 alternatives to biologic material, synthetics are Q. Dr. Raz is one of the proponents of 21 gaining popularity. The polypropylene mesh has 21 needle suspension procedures over the years; 22 shown promising initial and long-term results 22 correct? similar to that of autologous sling material"; 23 2.3 A. Well, he used to be. He's not 24 correct? 24 anymore. He doesn't do his own procedure anymore. 25 A. Correct. 25 Q. Why not? Page 299 Page 301 Q. And then you go on to say, "Our 1 A. Didn't work. 1 2 results indicated little degree of inflammation 2 Q. Okay. Do you have that Ford Cochrane 3 and significant fibrosis similar to that with 3 Review you cited to in your expert report handy? autologous material"; correct? 4 4 I think it was one of the first exhibits we 5 5 A. Correct. And that is the significant marked. Can I just turn to a page. I have a 6 finding of that, which we did not correctly 6 question for you. 7 7 interpret our results at that point in time. With the 2.1 percent mesh exposure 8 Q. Well, you've stated significantly that 8 rate they saw with the retropubic sling in the 9 none of the material appeared grossly infected at 9 Ford Cochrane Review of 2015, would there be a 10 explantation in your study either; is that right? 10 scientifically reliable way of stating which, if 11 A. That's correct. In the rabbit model 11 any, of those exposures occurred due to the 12 placed transabdominally, that is correct. 12 mechanically cut nature of the mesh? Q. All right. I think in your report 13 A. You have to look at those studies and 13 14 somewhere you mentioned -- and maybe I'm 14 see when they were published. If they're 15 published prior to 2007, you could say all of them 15 misstating this, but you were relying on -- or you found something important coming out of the UCLA were attributed. If they're published after that 16 16 17 we don't know, and they'd have to look at the 17 Grand Rounds? A. No. No. I don't recall that. 18 studies, see if they break it down in mechanical 18 19 19 Q. Okay. versus laser. Q. Do any of the randomized control 20 A. I attended multiple UCLA meetings 20 21 21 which involved discussions of meshes, but I think trials report that there was a sawing effect with 22 that's the only thing I could --22 the TVT mechanically cut mesh in the treatment of 23 O. Okav. 23 stress incontinence? A. I don't think I ever attended what we 24 24 A. I have not seen that in the 25 call Grand Rounds. 25 literature. That is based upon my personal

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experience with Sparc, not the TVT, and then also internal documentation.

mesh; correct?

Q. So if there was a 2.1 percent rate -if there was a 2.1 percent rate of exposure with
the retropubic TVT sling -- and I want you to
assume that all of those were mechanically cut,
okay -- how would you scientifically, reliably
ascertain which of those 21 patients' exposures
were because of the mechanical cut nature of the
mesh?

A. Looking at this, I have no idea how many of these are TVT or not. It says retropubic slings, but that could be anything. It's not talking up-down, top-down, or anything. They're not comparing TVT right here necessarily.

So based upon that, I don't know how to answer your question because I don't know what they're looking at, because they just say retropubic.

- Q. You didn't look and see how many of those studies were the TVT study?
- A. I did not look through those to find out that information, no.
 - Q. So let me ask you this hypothetical then. If there were hypothetically 21 mesh

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- A. Correct.
- Q. That study didn't assess the TVT retropubic mid-urethral sling to treat stress incontinence; correct?
- 5 A. Correct. It was TVT-Secur versus the 6 TVTO.
 - Q. And the TVTO, in that study, do you recall if there were any mesh exposures?
 - A. I'd have to look at the study. I don't recall.
 - Q. Do you know if that TVTO mesh was mechanical cut?
 - A. The Secur was laser cut. And it was my understanding that the TVTO was mechanically cut.
 - Q. And the TVTO mechanically cut had a lower rate of exposure than the TVT-Secur; correct?

MR. CARTMELL: Tell him, if you know.

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- A. Again, I do not know. I'd have to look at the study.
 - Q BY MR. SNELL: Are there any data in women on the TVT used to treat stress incontinence which report how many, if any, of those TVT mechanically cut slings have a sawing effect?

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exposures out of 1,000 TVT mechanically cut retropubic device cases, how would you -- would you be able to scientifically reliably say which of those 21 exposures were due to the mechanical cut nature of the mesh? And if so, how did you do that?

A. In a retrospective fashion, you would not be able to determine that with precision. You could say it's going to be a contributing factor in certain numbers. Also contributing could be degradation, infection, subclinical infection, all those things. In a retrospective fashion, you cannot. That's why it has to be done prospectively.

Q. And as you sit here today, you have never seen, in any prospective TVT retropubic study, any author attribute clinical mesh exposure due to a sawing of the mesh; correct?

A. I'd only have to go off of data on TVT-Secur and TVT -- TOT, the Hinoul study, but that is not a TVT study. To the best of my knowledge, that has not been evaluated. It should have been, but it has not been evaluated.

Q. The TVT-Secur, that was the laser cut

A. To the best of my knowledge, in those, they did not use that specific terminology. The fraying and the sawing is more from internal documentation of complaints coming into Ethicon and their discussions about it.

Q. Do any of the clinical studies on TVT used to treat stress incontinence report the mesh frame and its use in women?

A. Again, just like the last answer, I am unaware of any manuscript that discusses that specific terminology. That comes from internal documentation and also comes from my experience with the TVT, which did the same thing. But I didn't write on that either.

Q. Have you ever seen any scientifically reliable studies in women that document the incidents at which there is -- withdrawn.

I just didn't remember the word. You used two words, and I wanted to use one of them.

Have you ever seen any scientifically reliable studies in women utilizing the TVT retropubic device to treat incontinence that states the incidence of fraying of the mesh?

A. Again, this is -- what I stated before. I've not seen that in the literature,

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Page 306 Page 308 1 that specific terminology used. That comes from 1 obstruction, and then what happened to those 2 the internal documents and complaints that came 2 3 3 Q. What types of slings were those? in. 4 Q. Do you know the incidence for which 4 A. Those were all types of slings. Retropubic, suprapubic, transobturator, and 5 fraying of TVT retropubic mesh in the treatment of 5 6 stress incontinence occurs? 6 vaginal. 7 A. We have to go to my report on page 21, 7 Q. Were there any retropubic TVTs in that 8 8 where I talk about fraying -study? 9 Q. Um-hum. 9 A. I'd have to look and see what we 10 A. -- and particle loss, and the sawing 10 documented. effect. And the incidence -- okay. It varies --11 11 Q. What was the main result of that as you go through the various sections here in the 12 12 study? What percent of the patients remained 13 report on that. 13 continent following sling release. 14 A. Again, I'd have to look at that study, Say on page 22, testing done by 14 15 Ethicon. So that after elongation, 18 percent of the exact numbers on it. 15 16 the weight was lost due to particle loss. Q. Do you have it with you? 16 17 Pariente says the point -- 8.5 percent of the 17 A. Yes, I do. I should. Actually I 18 particle loss. 18 don't have the paper. I would have to guess on 19 the numbers. It was a high -- the issue was --Q. But my question is specific to 19 20 fraying. So what --20 MR. CARTMELL: Don't guess. If you 21 A. Fraying? 21 know, you know. 22 22 Q. Yes, sir. What -- I'm sorry. Yes, A. All I'll say is there's a high rate of Doctor. 23 23 reoperation once we cut the sling over time. That 24 What's the incidence of fraying that 24 was the significant findings. 25 occurs? I didn't see that number in your report. 25 BY MR. SNELL: What do you mean by Page 307 Page 309 1 1 that? A. I don't think I state a specific 2 number in there. However, during the placement of 2 A. What I mean is the traditional thought 3 it, where, you know, they talk about 50 percent of 3 was, based upon a Webster paper, George Webster 4 4 these devices are elongated during the out of Duke, is that if you cut slings, 85 percent 5 5 of people stayed dry. But the problem is no one implantation with 12 pounds of force, that causes had followed those individuals long-term. So we 6 the -- to rope, fray, and particle loss. So I 6 7 7 can't give you an exact percentage. But it is a followed them long-term and found out that over 8 8 constellation of problems that happen with that. time the rate of incontinence increased, requiring further treatment. So bottom line, it's not like 9 Q. Other than your paper on the use of 9 10 the Holmium laser, have you published on treating 10 if you obstruct somebody, you treat it, they're 11 any mesh complications? 11 done. They're great. No, they have problems 12 A. Yes. 12 later. 13 13 Q. What was the mean time for your Q. Where? What paper would that be? For 14 stress urinary incontinence? 14 surgery to release the sling? 15 A. Stress urinary incontinence. 15 I'd have to look at the paper. Was it more than a year or less than a 16 Q. Yes. 16 Q. A. I have the copy of my CV, which is an 17 17 year? 18 exact copy of yours. 18 A. I'd have to look at the paper. I 19 19 don't recall and I don't, for some reason, have a My page 17 of 25, I have the Holmium 20 laser complication, as you mentioned. And then 20 copy of it here. 21 21 number 9 on this is Clifton, et al., where I'm the Q. What was the long-term follow-up that

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you say that you all conducted? How long was

A. Again, that's what I'm saying. I need

to see the paper because I can't recall what the

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23

24

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22

23

24

25

senior author, of Repeat Anti-Incontinence

So that's a study of individuals who

had obstruction following a sling. We treated the

Procedures Following a Sling Release.

Page 310 Page 312 1 duration was. 1 off the record while he reviews it. 2 Q. As you sit here today, do you know 2 MR. SNELL: It's his own paper. So 3 whether 50 percent or more -- strike that. 3 you're going to waste my -- you're going to burn 4 As sit here today, was it more likely 4 my time with him looking at his own paper? than not that those papers who had a sling release 5 MR. CARTMELL: You wanted him to look 5 б would not require reoperation for incontinence? 6 at it. This is your time, period. 7 A. I'll get the paper. 7 Q. BY MR. SNELL: Okay. Doctor, could 8 8 you quickly look at your own paper that you wrote? Q. Okay. A. 14 percent of patients after a sling 9 A. Because I can't recall. 9 release ultimately went on to a repeat operation. 10 O. That's fine. I don't think I have it. 10 That's what we had in our data. 11 So if you don't remember, that's fine. 11 12 MR. CARTMELL: You don't need to get 12 Q. All right. So that means 86 percent 13 13 of those patients did not go on to a repeat sling the paper. 14 operation? 14 MR. SNELL: It would be good if he got 15 the paper. But that's fine. If he doesn't A. Yes. But some of those elected not to 15 16 remember his own data, that's fine. I'm not 16 because they were scared from previous surgeries. 17 trying to trick him. I just want to know. 17 Q. What percentage of the patients 18 MR. CARTMELL: I mean, if you don't 18 elected not to? 19 know the answer, then say you don't know, okay. 19 A. I'd have to look at the study. I don't have that. So I mean, that's -- again, I'd 2.0 A. I don't know the exact number. We 20 21 worked hard on it, and to do it justice, I'd have 21 have to look at the study. 22 22 Q. Fair enough. to find the paper. 2.3 BY MR. SNELL: Fair enough. 23 When you do your autologous fascial 24 In your Holmium laser paper, the 24 slings, and the transobturator autologous slings, 25 majority of women got better; right? 25 how do you tension those slings? Page 311 Page 313 1 A. At this point. But we are still 1 A. How do I tension them? I -- well, you 2 continuing to follow those, and that's what was 2 said two different things. Pubovaginal or 3 raised in the SUFU lecture when I talked about 3 autologous transobturator. Which one? Q. Either one. Or if there's a 4 this. We don't know what's going to happen to 4 5 5 these people long-term. difference, just tell me there's a difference. 6 Q. Here, I have your paper. We have it 6 A. Well, there's a difference between the 7 here. Clifton, you said? 7 two. A. Clifton. 8 8 Q. Fair enough. How do you tension 9 Q. This says median follow-up after 9 autologous fascial slings? 10 release was 32 months. Of the 93 patients, 10 A. Well, again, there's two different 14 percent required repeat anti-incontinence types. Pubovaginal or transobturator? 11 11 12 procedure after sling realize. 12 Q. Pubovaginal? A. Okay. All right. 13 13 A. Pubovaginal, there's three steps to do 14 Q. That's your paper; right? this. Place a cystoscope in the urethra, deflect 14 it 15 degrees. Up top in the abdomen, you tie 15 A. I can't see the top of it. I'll 15 assume you're telling me the truth, though. initial knot that you can fit two finger breadths 16 16 in it. Secure it with a clamp. Tie multiple 17 That's it. Yes. 17 knots. In doing that, you're fairly reproducible 18 Q. All right. So actually, your data 18 were consistent with other data in the literature, as far as the tension goes. 19 19 20 because 86 percent of your patients didn't require Q. Some surgeons use one finger breadth; 20 21 repeat anti-incontinence procedure; right? 21 correct? 22 A. I'll have to see the paper. 22 A. It's -- you can -- yeah. Well, I 23 MR. SNELL: We can go off the record can't speak to that. I do two finger breadths and 23 24 while he reviews that. 24 it works. 25 MR. CARTMELL: No. We're not going 25 Q. Is that because that's how you were

Page 314 Page 316 1 taught to do that procedure? 1 reproducible in my hands. 2 A. Yeah, but I'm going to modify it. 2 Q. Right. But you don't do all the sling 3 That's originally how -- oh, I was taught the 3 surgeries in this country. So I'm more interested 4 leave a gap. The key is you leave it loose. 4 in out in the masses in the United States. 5 5 Q. Okay. There is a fairly high rate of urinary 6 A. And so if you use one finger breadth 6 retention following the autologous pubovaginal 7 7 or two finger breadths might not make all that sling; right? 8 8 difference because it's the distance from the MR. CARTMELL: Object and move to strike the statement of counsel. Object to the 9 fascia to your knot, not necessarily the width. 9 10 So one finger breadth and two finger breadths is 10 form as well. MR. SNELL: I'll withdraw the 11 actually going to be the same. 11 Q. You don't really use any objective 12 12 statement. 13 measurement to assess tension; correct? 13 Q BY MR. SNELL: Let me just -- looking 14 broadly, nationally, okay, across the data, there A. That is an objective. 15 degrees and 14 one finger breadth. So I have objective, 15 is a fairly high rate of urinary retention 15 16 reproducible data. And I have never had, in my 16 following autologous pubovaginal slings; correct? 17 pubovaginal slings, a patient go into retention 17 MR. CARTMELL: Object to the form. 18 that was not a purposeful retention. 18 A. I can't agree with that. You say 19 fairly high. I don't know that. I've not seen 19 O. You don't use any type of gauge to 20 assess tension on the sutures; correct? 20 that data. 21 A. That does not exist for the 21 Q BY MR. SNELL: You've seen reports in 22 22 the data of rates of retention higher than pubovaginal slings. 23 20 percent following autologous pubovaginal sling? Q. All right. And is there any 23 literature that reports on the effect, if any, of 24 24 A. It depends on how you're describing 25 using one, two, or three suture finger breadths of 25 retention. If you're talking immediately Page 315 Page 317 postoperatively, yes, that is very commonly. detensioning for the autologous pubovaginal sling 1 2 2 as opposed to some other method of tensioning? That's why a suprapubic tube or intermittent 3 A. No, there's nothing in the literature 3 catheterization is not uncommonly required. 4 like that. The teaching is to leave it loose. 4 Permanent retention after a month or six weeks, 5 5 Q. And realizing you don't really do the that's debatable, the duration, should be very 6 Burch. Do you even remember how you were taught 6 low. In experienced people's hands, it's 7 7 to tension or detension a Burch? essentially zero. Again, my hands zero. 8 8 Q. You've read the sister study by the --A. No, I don't remember that. 9 Q. What is wrong with the tensioning of 9 that was funded by the NIH that compared the 10 the TVT retropubic device, if anything, in your 10 autologous pubovaginal fascial sling to the Burch 11 colposuspension, and they found statistically 11 opinion? 12 A. It's not reproducible. The 12 significant higher rates of not only voiding pubovaginal sling, I can tell somebody exactly 13 dysfunction and retention but retention requiring 13 14 like I told you. Cystoscope in, deflect it 14 reoperation in the autologous sling arms; correct? 15 degrees, two finger breadths up, tie it loose, 15 15 A. That's been a long time since I've and you won't have retention. 16 16 read it. I have to look at that paper. That was TVT, it says tension free, but then a good paper, but it's been a long time since I've 17 17 18 there's tension. And so it's not reproducible. I 18 seen it. 19 can't tell you how to tension it correctly. I can 19 MR. CARTMELL: I don't mean to interrupt, but I'd like to check the time, please. 20 tell you the pubovaginal sling. 20 21 Q. Well, with the pubovaginal sling, 21 THE REPORTER: 7 hours and 13 minutes. 22 there is a fair number of patients who have 22 MR. CARTMELL: Okay. You're done. If urinary retention after that procedure; right? you want to go -- I may have a few questions. But 23 23 24 A. I can't speak to those. I can speak 24 if -- if -- we can go off the record if you want 25 to my own experience. Like I say, it's 25 and talk about what you and Ben agreed to. It's

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Page 318
                                                                                                      Page 320
 1
      just nobody told me that, and I really need to be
                                                            1
                                                                 idea.
 2
                                                            2
                                                                        MR. SNELL: Okay. Yeah, I mean, that
 3
                                                            3
             But let's go off the record right now.
                                                                 wasn't my idea, okay. One.
 4
             MR. SNELL: Well, no. This needs to
                                                            4
                                                                        Two, I understand. I know -- you
 5
                                                            5
      be put on the record, and I have emails
                                                                 know, look, I have a family, too, and I sympathize
 6
                                                            6
      documenting this, where Ben said, Burt, the MDL
                                                                 for you.
 7
                                                            7
      design defect dep and New Jersey general TVT dep
                                                                        But, three, I came here with that
                                                            8
 8
      have to done in one sitting on one day; you got to
                                                                 intention and am ready to go.
                                                            9
 9
      do it today. And I said, okay, Ben, I will. And
                                                                        And four, in New Jersey, my experts
10
                                                          10
      then he and Judy Walberger, are doing the case
                                                                 have been deposed for pretty much more than
11
      specific Watkins deposition next weekend. So that
                                                          11
                                                                 12 hours in a sitting.
                                                          12
12
      was the agreement.
                                                                          (Recessed from 5:33 p.m. to
13
              And I emailed Ben, fine, I'll do that.
                                                          13
                                                                           5:42 p.m.)
14
                                                          14
                                                                        MR. SNELL: So I will pass the witness
      No problem. I'll start the New Jersey general TVT
15
                                                          15
                                                                 in the MDL design defect case, and I reserve the
      dep after this deposition, okay. And nobody ever
16
                                                          16
                                                                 right to do the New Jersey TVT general deposition,
      said that that wasn't going to occur. And I came
17
      here with that expectation. And I wouldn't lie to
                                                          17
                                                                 as I told Ben.
18
      you. I mean, you've seen the email. Were you on
                                                          18
                                                                        And I'm looking at my email that I
      the email? It's in the email.
19
                                                          19
                                                                 sent to him, where I said, "That's fine. I will
20
             MR. CARTMELL: You don't have to
                                                           20
                                                                 do my MDL design defect deposition first. And
21
                                                           21
                                                                 after that we will do the New Jersey general TVT
      answer that.
22
                                                           22
             MR. SNELL: You don't have to answer.
                                                                 deposition for anything that was not already
                                                           23
23
      You're not under oath.
                                                                 addressed."
24
             But with that said, what do you want
                                                           24
                                                                        I'll stand by that statement I sent to
25
      to do? I understand you have to do something with
                                                           25
                                                                 Ben. I will not be duplicative. I really only
                                                                                                      Page 321
                                           Page 319
 1
      your family.
                                                                 have the warning stuff from my quick review of his
 2
             MR. CARTMELL: We've been here nine
                                                            2
                                                                 report left over. So I am not foregoing my right
 3
      hours, and I don't want to put him through -- if
                                                            3
                                                                 to do that portion. And I will make a statement
                                                            4
 4
      you told me you had 30 minutes or an hour, then
                                                                 on the record that New Jersey, the deposition of
 5
      maybe, but I mean --
                                                            5
                                                                 an expert is not limited to 7 hours. My experts
 6
             MR. ROSENBLATT: Did they agree to
                                                            6
                                                                 have been deposed in cases in New Jersey for well
                                                            7
 7
      extend any deadline? Will that work?
                                                                 over 10 hours. But so that's my position. And
                                                            8
 8
             MR. CARTMELL: What's the deadline in
                                                                 I -- go ahead, Tom.
 9
      New Jersey we're talking about?
                                                            9
                                                                        MR. CARTMELL: Okay. Just so it's
10
             MR. SNELL: I don't know. I think
                                                          10
                                                                 clear. We took a break. I called Ben. He told
                                                          11
11
      it's October 5th or something.
                                                                 me that the correspondence back and forth was --
12
             MR. ROSENBLATT: I don't know.
                                                          12
                                                                 or our position, I guess, that he stated was you
                                                          13
13
             MR. CARTMELL: Let me make a call,
                                                                 needed to do both the New Jersey and the MDL
14
                                                          14
                                                                 deposition today, meaning in 7 hours, because
      okay.
                                                          15
15
             MR. SNELL: Yeah.
                                                                 there's a 7-hour requirement from the -- I'm just
                                                                 telling you what he said, from the MDL. And that
16
             MR. CARTMELL: I mean, I don't want to
                                                          16
17
      get anybody in trouble and all that, and I get the
                                                          17
                                                                 the reports are the same. The general causation
                                                          18
18
      idea of having -- you know, doing them all at
19
                                                          19
      once. But I'm telling you, I knew nothing about
                                                                        You just pointed out to me that in
20
      this. And I think the idea of making a
                                                           20
                                                                 New Jersey there are failure-to-warn opinions that
                                                           21
21
      deposition -- you know, he's been here 9 hours.
                                                                 you have not yet been able to question the witness
22
      We've been on the record over 7 hours. That's
                                                           22
                                                                 on. And I do agree with that. You have not done
23
      hard. I don't know that I want him to continue
                                                           23
24
                                                           24
      this.
                                                                        You've said you wanted to continue the
25
             MR. ROSENBLATT: It wasn't Burt's
                                                           25
                                                                 deposition for that. I had not been told -- and
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Page 322 Page 324 1 1 we've been here for 9 hours. I had not been told A. That based upon the medical 2 that that was going to happen today. I actually 2 literature, Klosterhalfen, Klinge, as stated in my 3 3 have a prior commitment that I really need to go report, lightweight large pore meshes have lower 4 to, and I believe the doctor is tired as well. 4 complication rates, and that is also including the 5 5 So I've agreed, and I think you have. internal Ethicon documents that state 6 6 acknowledgment of that fact. too, that we would go ahead and allow you that 7 7 time for the warnings opinions that you have and Q. You mentioned, when you were 8 8 questioned by Mr. Snell, that the TVT, I believe set it up at an additional time. 9 MR. SNELL: And at a mutually 9 you said during the first six weeks, may result in 10 10 convenient date between doctor, myself, and more pain. 11 whoever will defend. 11 Do you recall that? 12 MR. SNELL: Objection. Misstates. 12 MR. CARTMELL: That's right. 13 MR. SNELL: And I will just state for 13 A. I don't believe I said that. That the the record, too, Ben Anderson never told me he 14 TVT may result in more pain? No, I didn't --14 15 15 Q BY MR. CARTMELL: You didn't say that? expected me to do both in 7 hours, nor does he A. I didn't say that. 16 have a basis under the New Jersey Rules of 16 17 17 Procedure to make such a statement. I have my Q. I think you were talking about 18 email that I sent to him, and there was no reply 18 perioperative pain when comparing the TVT to maybe 19 19 pubovaginal slings or the Burch. saying, no, Burt, you're wrong. 20 2.0 MR. CARTMELL: Okay. A. Correct. 21 MR. SNELL: But we have an agreement, 21 Q. Okay. When you were talking about 22 22 pain during that perioperative period or during and I'm passing the witness. Let's get this 23 the first six weeks, what type of pain were you 2.3 design defect deposition in the books. 24 MR. CARTMELL: Okay. 24 talking about? 25 MR. SNELL: That way you can go do 25 A. I'm talking about incisional pain, Page 325 Page 323 1 pain in the suprapubic region, where the tissue your thing. 2 MR. CARTMELL: Doctor, I just have a 2 may have been harvested. I'm not talking about 3 few follow-up questions. 3 vaginal discomfort. That would be equal. We're 4 4 You recall that you were asked just giving the harvest area. 5 5 previously about --Q. Are you talking about dyspareunia? 6 MR. SNELL: Can you give me one 6 A. No. I'm talking specifically 7 7 second, Tom. I'm essentially sorry to interrupt perioperative incisional pain. 8 you. I just have to get something to write with. 8 Q. Do you have an opinion within a 9 Very, very sorry. Go ahead. I'll shut up. 9 reasonable degree of medical certainty whether or 10 **EXAMINATION** 10 not TVT, when compared to pubovaginal slings or 11 BY MR. CARTMELL: 11 Burch slings, causes more dyspareunia or vaginal 12 Q. Do you recall being asked questions by 12 pain on a long-term basis? 13 Mr. Snell about large pore lightweight mesh? 13 MR. SNELL: Objection. Beyond the 14 A. Yes. 14 scope. Non-disclosed opinion in the report. 15 Q. And do you have an opinion within a 15 Go ahead. 16 reasonable degree of medical certainty that 16 A. Based upon my clinical experience, my 17 17 lightweight large pore mesh would lead to less discussion with colleagues, review of the 18 complications in the TVT or in a mid-urethral 18 literature, and what is outlined in my expert 19 sling than the TVT heavy weight small pore mesh? 19 report, TVT, in the long-term, causes increased 20 20 risk for dyspareunia and the severity of that 21 21 MR. SNELL: Objection. Leading. Go dyspareunia. 22 22 Q BY MR. CARTMELL: What about with ahead. 23 23 A. Yes. vaginal pain? 24 Q BY MR. CARTMELL: And what is your 24 A. Vaginal pain would be the --MR. SNELL: Same objection. Go ahead. 25 opinion? 25

Page 326 Page 328 1 Doctor. I'm sorry. 1 pain from either of those aforementioned 2 A. They would be the same. Vaginal pain 2 procedures. But I see it commonly, weekly with 3 implies a constant vaginal pain. Dyspareunia is 3 the meshes, including the TVT. 4 4 just during sexual activity. And, yes, in my Q. You can't point to any comparative 5 experience, I do not see pubovaginals and Burchs 5 trials that show a statistically significantly come in with that type of pain. On a daily basis, higher rate of dyspareunia for the TVT retropubic 6 6 7 7 device compared to either the Burch or the I see the TVT that way. 8 8 MR. CARTMELL: Okay. That's all I pubovaginal sling; correct? 9 9 A. Those studies, as you've mentioned, have. 10 MR. SNELL: A couple of quick 10 have not been done. 11 questions in follow-up. 11 Q. And actually, the one paper you 12 **EXAMINATION** 12 pointed me to earlier about the Burch had the 13 BY MR. SNELL: 13 4 percent rate of dyspareunia with that procedure 14 14 long-term; correct? Q. Cobb, Klosterhalfen and Klinge, none 15 15 of those are pelvic surgeons; correct? A. It wasn't 4 percent. It was A. Clave, I don't know what he is. The 16 16 3.9 percent. 17 first two, Klinge and Klosterhalfen are 17 Q. So -- okay. If you round up, it's 18 pathologists, I believe. 18 4 percent; correct? O. Cobb is not --19 19 A. I don't round up, though. 2.0 A. Cobb is not. And I don't know if I 20 Q. Okay. And you can't point to any 21 mentioned it. I mentioned -- Clave should be on 21 studies on TVT that show a rate higher than 22 22 there, and I believe he is a pelvic surgeon, but I 3.9 percent at that length of follow-up for 2.3 don't know his specific credentials. 23 dyspareunia; can you? 24 Q. But Cobb, Klosterhalfen, Klinge, none 24 MR. CARTMELL: Object to the form. 25 of them published on the TVT device assessed in 25 A. Because that study has not been done. Page 327 Page 329 As I mentioned, no studies focused specifically on 1 women; correct? 2 A. That is correct, yes. 2 output -- end point of dyspareunia have been done. 3 Q. Just so we're clear on the record, the 3 Q BY MR. CARTMELL: So the answer to my question is, yes, you can't point to that study; 4 increased perioperative incisional pain that you 4 5 5 just talked to Mr. Cartmell about, that actually correct? 6 occurs in the autologous pubovaginal arm; is that 6 MR. CARTMELL: Object to the form. 7 7 correct? Asked and answered. 8 8 A. That is correct. It would be fair to A. That's what I mentioned. Those 9 9 studies with that specific end point have not been say that, in my experience, the immediate 10 perioperative period, you will have an increased 10 done. incisional pain that is still treated with 11 Q BY MR. CARTMELL: Except you know that 11 12 medications and tolerable, but it will be more 12 there's a 10-year TVT retropubic study, lead 13 author Heinonen, that reports zero cases of 13 than the TVT. 14 Q. Now, I believe you said that you 14 dyspareunia at 10 years follow-up. 15 believe that the long-term dyspareunia rates with 15 Did you know that? A. You would have to show me that study. 16 the TVT were higher than pubovaginal, did you say, 16 17 Q. Do you know that study? 17 and the Burch? 18 A. I'm saying, you'd have to show me that 18 A. I don't recall if I mentioned the 19 study. I've read a lot of studies. I can't 19 Burch in there. 20 20 recall that one specifically. So I'd have to look What I mentioned was the pubovaginal 21 21 and the Burch have traditionally been a very at that. 22 common procedure done up until the mid-'90s and 22 Q. So you very well may be wrong when you 23 into probably early 2000's. 23 make statements like there's no long-term studies 24 And in my practice, I have never seen 24 that look at TVT and dyspareunia? MR. CARTMELL: Object to the form. 25 a woman come in with severe pain, life altering 25

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	Page 330		Page 332
1	Q. BY MR. SNELL: Correct?	1	compared to the mid-urethral sling; correct?
2	A. Also certain studies I've looked at, I	2	A. I'd have to look at that. That's a
3	disregard	3	799-page document. I'd have to see that.
4	Q. Can you say yes or no?	4	Q. As you sit here today, you can't
5	MR. CARTMELL: Let him answer the	5	answer my question?
6	question?	6	A. Oh, I can answer. Let's pull out the
7	A. That's not a yes or no. It's more	7	document, take a look at it.
8	complicated than that. I review a lot of studies.	8	Q BY MR. SNELL: Do you want to do that?
9	Some of them get disregarded because they're so	9	MR. CARTMELL: I mean, I'm not giving
10	poor quality that they're not worth quoting. So	10	you any more time. So you don't have the time to
11	that particular study I'd like to see and we can	11	do that. This whole day you've been asking him
12	dissect that one out.	12	questions about things and you've been making
13	Q. And if I'm correct	13	statements from those documents without showing
14	MR. CARTMELL: You said a couple. So	14	them to him.
15	you went over 7 hours. And I'm here for the MDL	15	MR. SNELL: No, no. He's got these
16	portion.	16	documents.
17	MR. SNELL: I didn't go over 7 hours.	17	MR. CARTMELL: No, no.
18	MR. CARTMELL: You went 7 hours and 13	18	MR. SNELL: I wouldn't misrepresent.
19	minutes.	19	MR. CARTMELL: All day long.
20	MR. SNELL: No, no. That was 6 hours;	20	MR. SNELL: Do you want me to show him
21	wasn't it?	21	the numbers? You know the numbers. I used them
22	MR. CARTMELL: No. It was 7 hours and	22	with Dr. Rosenswath.
23	13 minutes. I let you ask a few. We done.	23	MR. CARTMELL: No. I want to be done.
24	MR. SNELL: Okay.	24	You're over your 7 hours. So let's go.
25	MR. CARTMELL: And you could have	25	Q BY MR. SNELL: As you sit here,
	Page 331		Page 333
1	saved your time.	1	Doctor, can you answer my question without me
2	MR. SNELL: Well, I have two more	2	showing you those papers?
3	considering you've asked him to comment and say	3	A. I want to see those papers.
4	rates are higher. That's not even in his expert	4	MR. CARTMELL: No.
5	report, okay. He doesn't put in his expert report	5	MR. SNELL: Fair enough.
6	what the rates are for Burch, for the pubovaginal,	6	MR. CARTMELL: The question was: Can
7	or the TVT.	7	you answer it without seeing the papers. If you
8	MR. CARTMELL: I didn't ask him what	8	can't answer it without seeing it, just say no.
9	the rates were.	9	A. I cannot answer it without it. It's a
10	MR. SNELL: Yes, you did.	10	799-page document. I would need to see those
11	MR. CARTMELL: No, I didn't. I	11	papers.
12	said	12	MR. SNELL: Fair enough.
13	MR. SNELL: You said higher.	13	MR. CARTMELL: Go ahead. Thank you
14	MR. CARTMELL: the claim is it's	14	very much.
15	higher, and it says that in his expert report.	15	(Deposition concluded at 5:54 p.m.)
16	MR. SNELL: No, it doesn't.	16	
17	MR. CARTMELL: Yes, it does.	17	
18	MR. SNELL: It can't be higher. He	18	
19	doesn't even have the rates.	19	
20	Q BY MR. SNELL: How about this? You've	20	
21	seen the AUA guideline from 2012 and the SGS	21	
22	systematic meta-analysis and review, and in both	22	
23 24	of those systematic reviews, they report higher	23	
. //	rates of dyspareunia, pain, and sexual dysfunction	24	
25	with the autologous sling and the Burch as	25	· · · · · · · · · · · · · · · · · · ·

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1	REPORTER'S CERTIFICATE	1	13.50 200
2	REI ORTERS CERTIFICATE		ERRATA
3	I, NAOLA C. VAUGHN, a Certified Court	2	
4	Reporter within and for the States of Missouri and	3	PAGE LINE CHANGE
5	Kansas, hereby certify that the within-named witness	4	
6	was first duly sworn by me to testify to the truth;	5	REASON:
7	and that the deposition by said witness was given in	6	
8	response to the questions propounded, as herein set	7	REASON:
9	forth; was first taken in machine shorthand by me	8	
10	and afterwards reduced to writing under my direction	9	REASON:
11	and supervision; and is a true and correct record of	10	
12	the testimony given by the witness.	11	REASON:
13	I further certify that I am not a relative	12	
14	or employee or attorney or counsel of any of the	13	REASON:
15	parties, or a relative or employee of such attorneys	14	
16 17	or counsel, or financially interested in the action. WITNESS my hand and official seal at	15 16	REASON:
18	Tonganoxie, Kansas, this 29th day of September 2015.	17	DE A CONI.
19	Tonganoxie, Kansas, tins 29th day of September 2013.	18	REASON:
20		19	REASON:
21		20	
22	NAOLA C. VAUGHN, CCR, CRR, RPR	21	REASON:
	Missouri CCR No. 1052	22	
23	Kansas CCR No. 0895	23	REASON:
24		24	
25		25	REASON:
	Page 335		Page 337
1	INSTRUCTIONS TO WITNESS	1	ACKNOWLEDGMENT OF DEPONENT
2	INSTRUCTIONS TO WITHEST	2	
3	Please read your deposition	3	I,, do hereby certify that I have read the
4	over carefully and make any necessary		foregoing pages, and that the same
5	corrections. You should state the reason	4	is a correct transcription of the answers given by me to the questions therein
6	in the appropriate space on the errata	5	propounded, except for the corrections or
7	sheet for any corrections that are made.	_	changes in form or substance, if any,
8	After doing so, please sign	6 7	noted in the attached Errata Sheet.
9	the errata sheet and date it. It will be	,	
10	attached to your deposition.	8 9	DANIEL STEVEN ELLIOTT, M.D. DATE
11	It is imperative that you	10	
12	return the original errata sheet to the	11	
13	deposing attorney within thirty (30) days	12 13	
14	of receipt of the deposition transcript	14	
15	by you. If you fail to do so, the	1.5	Subscribed and sworn
16	deposition transcript may be deemed to be	15	to before me this day of, 20
17	accurate and may be used in court.	16	
18		17	My commission expires:
19		18	
20		1.0	Notary Public
21		19 20	
22		21	
23		22 23	
24			
25		24	

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Daniel Steven Elliott, M.D.

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